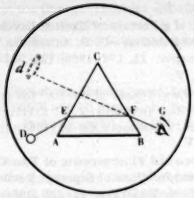

optics and spectroscopy

volume xxv

OPTICAL SOCIETY OF AMERICA

USSR ACADEMY OF SCIENCES

AUTHOR INDEX

VOLUME XXV: JULY-DECEMBER

[Numbers in brackets refer to Russian original.]

ABDURAKHMANOV, A. A.
Rotational Constants, Dipole Moment, and Structure of the Transform of n-C_3H_4O—L. M. Imanov, A. A. Abdurakhmanov, and R. A. Ragimova. 25, 528 (1968) [25, 954 (1968)]

AKHMANOV, S. A.
Observation of Stimulated Mandelstam-Brillouin Scattering in the Field of Laser Optical Harmonics—S. A. Akhmanov and M. A. Bolshov. 25, 233 (1968) [25, 432 (1968)]

AKHVLEDIANI, Z. G.
Absorption of Irradiated LiF Crystals in the ir Region of the Spectrum—Z. G. Akhvlediani and N. G. Politov. 25, 86 (1968) [25, 163 (1968)]

AKOPYAN, S. Kh.
Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules III: Polyatomic Molecules (Intensities of the Infrared Spectra of HCN and DCN)—O. P. Girin, S. Kh. Akopyan, and N. G. Bakhshiev. 25, 111 (1968) [25, 207 (1968)]

ALEKSANDROV, V. Ya.
Relaxation Method for Determining the Nature of Continuum in Nonequilibrium Arc Discharges—V. Ya. Aleksandrov, D. B. Gurevich, and I. V. Podmoshenskii. 25, 378 (1969) [25, 674 (1969)]

ALEKSEEV, V. A.
The Broadening of the Spectral Lines of Non-Hydrogen-Like Ions—V. A. Alekseev and E. A. Yukov. 25, 363 (1969) [25, 645 (1969)]

ALEKSEEVA, L. A.
Investigation of Magnetooptical Rotation in f–d-Transitions in CaF_2–Dy^{2+} Crystals—L. A. Alekseeva and N. V. Starostin. 25, 532 (1968) [25, 960 (1968)]

ALPEROVICH, L. I.
Optical Characteristics of Solid Films of Dyes in the Region of Electronic Bands—V. M. Korovina, L. I. Alperovich, N. G. Bakhshiev, and P. K. Khripunov. 25, 126 (1968) [25, 236 (1968)]

Remarks on Articles by M. P. Lisitsa and Coauthors on Dispersion in the Infrared Region—L. I. Alperovich. 25, 247 (1968) [25, 451 (1968)]

Determination of the Absorption Band Intensities of Anthracene in an Absorbing Solvent on the Basis of Dispersion Measurements—V. M. Korovina and L. I. Alperovich. 25, 282 (1968) [25, 506 (1968)]

AMSTISLAVSKII, Ya. E.
On One Case of Multiple-Beam Interference—Ya. E. Amstislavskii. 25, 143 (1968) [25, 270 (1968)]

ANDREEVA, A. I.
Theoretical and Experimental Investigation of Absolute Band Intensities in the Infrared Spectra of Polyatomic Molecules. II. Acetaldehyde—V. I. Vakhlyueva, A. G. Finkel, L. M. Sverdlov, and A. I. Andreeva. 25, 234 (1968) [25, 433 (1968)]

ANDREEVA, T. L.
On the Gas Laser Regime at High Pressures—T. L. Andreeva and T. I. Kuznetsova. 25, 141 (1968) [25, 266 (1968)]

ANDREYEV, S. I.
The Absorption of a Xenon Plasma in the Continuum Region—S. I. Andreyev and O. G. Baikov. 25, 269 (1968) [25, 481 (1968)]

ANISIMOVA, G. P.
Determination of g Factors of Excited Levels of Neutral and Singly Ionized Rubidium—G. P. Anisimova, V. D. Galkin, and R. I. Semenov. 25, 176 (1968) [25, 322 (1968)]

ANTONOV, A. V.
Anisotropy of the g-Tensor of the Er^{3+} Ion in Erbium-Gallium Garnet—A. I. Belyaeva, V. V. Eremenko, V. N. Pavlov, and A. V. Antonov. 25, 55 (1968) [25, 109 (1968)]

ARISTOV, A. V.
Phosphorescence and Fluorescence of Two-Component and Multicomponent Solutions of Biphenyl Derivatives—A. V. Aristov and E. N. Viktorova. 25, 283 (1968) [25, 509 (1968)]

ARTEMYEV, V. V.
Correlation Spectroscopy of Optical Radiations—V. V. Artemyev. 25, 358 (1969) [25, 635 (1969)]

BAIKOV, V. I.
Low-Frequency Vapor Spectra of Alkaline-Earth Metal Fluorides—V. I. Baikov. 25, 194 (1968) [25, 356 (1968)]

BAIKOV, O. G.
The Absorption of a Xenon Plasma in the Continuum Region—S. I. Andreyev and O. G. Baikov. 25, 269 (1968) [25, 481 (1968)]

BAKHSHIEV, N. G.
Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules. II: Diatomic Molecules (Infrared Spectra of HCl)—O. P. Girin, N. G. Bakhshiev, and O. I. Maksimova. 25, 22 (1968) [25, 45 (1968)]

Quantitative Study of the Effect of Temperature on the Intensity of Infrared Absorption Bands in Liquids—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 29 (1968) [25, 58 (1968)]

Spectral Dependence of the Degree of Rotational Depolarization of the Fluorescence of Complex Molecules in Viscous Solutions—Yu. T. Mazurenko, N. G. Bakhshiev, and I. V. Piterskaya. 25, 46 (1968) [25, 92 (1968)]

Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules III: Polyatomic Molecules (Intensities of the Infrared Spectra of HCN and DCN)—O. P. Girin, S. Kh. Akopyan, and N. G. Bakhshiev. 25, 111 (1968) [25, 207 (1968)]

Optical Characteristics of Solid Films of Dyes in the Region of Electronic Bands—V. M. Korovina, L. I. Alperovich, N. G. Bakhshiev, and P. K. Khripunov. 25, 126 (1968) [25, 236 (1968)]

Determination of the Einstein-Coefficient Spectra of Molecules of Aromatic Compounds in Solution in the Electronic-Absorption-Band Region—V. M. Korovina and N. G. Bakhshiev. 25, 162 (1968) [25, 302 (1968)]

On the Necessity of Correcting Observed Absorption Spectra of Solids in the Study of Their Microcharacteristics—O. P. Girin, V. S. Libov, and N. G. Bakhshiev. 25, 237 (1968) [25, 438 (1968)]

Temperature Dependence of the Absorption and Dispersion of Carbon Tetrachloride in the Range 740–820 cm^{-1}—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 525 (1968) [25, 949 (1968)]

Absorption and Dispersion of Certain Organic Liquids in the Region of IR Absorption Bands—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 526 (1968) [25, 951 (1968)]

BASKAKOVA, Z. A.
Power Amplification of a Laser Pulse Acting on a Substance in the Presence of Induced Mandelstam-Brillouin Backscattering—F. A. Korolyev, Z. A. Baskakova, A. I. Odintsov, and G. Singurel. 25, 72 (1968) [25, 142 (1968)]

BATALOV, Yu. V.
Calculation of the Optimum Shape of Light Flux Modulation —Yu. V. Batalov and V. F. Nesteruk. 25, 432 (1969) [25, 773 (1969)]
On the Effect of the Charge-Transfer State on the Optical Properties of Substituted Benzenes—N. I. Galperina, V. M. Berenfeld, V. P. Bazov, and V. A. Krongauz. 25, 115 (1968) [25, 216 (1968)]

BELOV, S. N.
Coefficient of Continuous Absorption of Hydrogen–Carbon Plasma at 40 000°K and 70 Atm—S. N. Belov, N. N. Ogurtsova, and I. V. Podmoshenskii. 25, 383 (1968) [25, 684 (1968)]

BELYAEVA, A. I.
Anisotropy of the g-Tensor of the Er^{3+} Ion in Erbium-Gallium Garnet—A. I. Belyaeva, V. V. Eremenko, V. N. Pavlov, and A. V. Antonov. 25, 55 (1968) [25, 109 1968)]

BELYAVSKAYA, L. V.
On the Calculation of Fundamental Frequencies and Vibrational Forms of Mono- and Deutero-Substituted Pyramidal Hydrides—L. V. Belyavskaya, V. N. Shabur, and V. P. Morozov. 25, 31 (1968) [25, 62 (1968)]

BELYI, M. U.
Breakdown of the Bunsen–Rosco Law in the Photochemical Oxidation of Antimony Ions—M. U. Belyi and B. A. Okhrimenko. 25, 139 (1968) [25, 262 (1968)]

BERDNIKOV, S. L.
Luminescence of Zinc and Magnesium Orthovanadates Imbedded in Certain Oxides and Salts—S. L. Berdnikov and Ya. M. Zelikin. 25, 329 (1968) [25, 591 (1968)]

BERENFELD, V. M.
On the Effect of the Charge-Transfer State on the Optical Properties of Substituted Benzenes—N. I. Galperina, V. M. Berenfeld, V. P. Bazov, and V. A. Krongauz. 25, 115 (1968) [25, 216 (1968)]

BEREZIN, A. A.
Energy of Splitting of the Singlet and Triplet Terms of the M Center—A. A. Berezin. 25, 341 (1968) [25, 610 (1968)]

BERZING, E. G.
Q Switching of a Laser Based on the Triplet-Triplet Transitions of Organic Molecules—E. G. Berzing, S. V. Lopina, Yu. V. Naboikin, and Yu. A. Tiunov. 25, 227 (1968) [25, 421 (1968)]

BOBOVICH, Ya. S.
Some Features of Raman Scattering in Powdered p-Nitroaniline and Related Compounds—Ya. S. Bobovich and A. V. Bortkevich. 25, 426 (1969) [25, 763 (1969)]
Experimental Study of the Intensities of Stimulated Raman Lines of Certain Pure Liquids and Their Binary Mixtures—A. V. Bortkevich and Ya. S. Bobovich. 25, 474 (1968) [25, 849 (1968)]

BOCHKOVA, O. P.
Collisions of the Second Kind in the Afterglow of the Positive Column of a Mercury–Krypton Discharge—O. P. Bochkova and Yu. A. Tolmachev. 25, 187 (1968) [25, 342 (1968)]
Investigation of the Process of Excitation Energy Transfer from the 7^3S_1 Level of Mercury to the 4^1D_2 Level of Zinc in the Afterglow of a Discharge in a Zinc–Mercury–Krypton Mixture—O. P. Bochkova. 25, 539 (1968) [25, 972 (1968)]
The Transfer of Excitation Energy between the 10^3P_1 and 10^3P_2 Levels of Hg in Collisions with Krypton Atoms and Electrons—O. P. Bochkova. 25, 456 (1968) [25, 815 (1968)]

BOGDANOVA, I. P.
The Relative Brightness and Optical Excitation Functions of Certain Spectral Lines of Mercury—I. P. Bogdanova and V. D. Marusin. 25, 174 (1968) [25, 319 (1968)]

BOHKAN, P. A.
On a Possibility of Using Noncontracted Discharge to Enhance the Power of a Co_2-N_2-He Laser—P. A. Bohkan. 25, 225 (1968) [25, 417 (1968)]
On the Possibility of Optical Pumping of Gases by Their Own Radiation—P. A. Bokhan and G. I. Talankina. 25, 298 (1968) [25, 536 (1968)]

BOITSOV, V. F.
Optical Resonator with a Lens Placed Inside It and Matched to Its Mirrors—V. F. Boitsov. 25, 62 (1968) [25, 122 (1968)]
Intrinsic Frequencies and the Distribution of Fields on Mirrors of an Astigmatic Resonator in the Geometrical Optics Approximation—V. F. Boitsov. 25, 168 (1968) [25, 311 (1968)]

BOLOTNIKOVA, T. N.
On the Concentration Dependence of Quasiline Phosphorescence Spectra—T. N. Bolotnikova and T. M. Naumova. 25, 253 (1968) [25, 460 (1968)]
Concentration Effect on the Decay Time of the Naphthalene and Phenanthrene Phosphorescence—T. N. Bolotnikova, T. M. Naumova, F. I. Gurov, and V. G. Kazachkov. 25, 291 (1968) [25, 523 (1968)]
Influence of the Nature of a Para-Substituent on the Frequency of the First Electronic Transition in the Stilbene Molecule—T. N. Bolotnikova, L. Ya. Malkes, A. I. Nazarenko, and V. N. Yakovenko. 25, 348 (1968) [25, 621 (1968)]

BOLSHOV, M. A.
Observation of Stimulated Mandelstam-Brillouin Scattering in the Field of Laser Optical Harmonics—S. A. Akhmanov and M. A. Bolshov. 25, 233 (1968) [25, 432 (1968)]

BORTKEVICH, A. V.
Some Features of Raman Scattering in Powdered p-Nitroaniline and Related Compounds—Ya. S. Bobovich and A. V. Bortkevich. 25, 426 (1969) [25, 763 (1969)]
Experimental Study of the Intensities of Stimulated Raman Lines of Certain Pure Liquids and Their Binary Mixtures—A. V. Bortkevich and Ya. S. Bobovich. 25, 474 (1968) [25, 849 (1968)]

BRUDZ, V. G.
Transfer of Electronic Excitation Energy in Rigid Solutions of Organic Luminors—Ya. A. Terskoi, V. G. Brudz, and O. N. Korolkova. 25, 287 (1968) [25, 516 (1968)]
The Transfer of Electronic Excitation Energy in Solid Solutions by Means of Virtual Excitons—Ya. A. Terskoi and V. G. Brudz. 25, 489 (1968) [25, 877 (1968)]
The Effect of Intramolecular Interactions on the C≡C Absorption Band Intensity in the Infrared Spectra of Some Acetylene Derivatives with Conjugated Bonds—E. A. Gastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova. 25, 429 (1969) [25, 769 (1969)]

BURNASHOVA, T. D.

BURNSTEIN, A. I.
Kinetics of Absorption by a Substance of a Broad-Spectrum Radiation—A. I. Burstein and Yu. S. Oseledchik. 25, 75 (1968) [25, 146 (1968)]

CHAIKA, M.
Hanle Effect for Different Excitation Times of Interfering Levels—G. Khvostenko and M. Chaika. 25, 181 (1968) [25, 330 (1968)]

Depolarizing Collisions of Excited Thallium Atoms with Inert Gases—S. Teplova, M. Chaika, and V. Cherenkovskii. 25, 189 (1968) [25, 346 (1968)]

Stark Effect on Hyperfine Levels of the $7P_{3/2}$ State of Cesium—G. Khvostenko and M. Chaika. 25, 246 (1968) [25, 450 (1968)]

CHARNAYA, F. A.

Determination of the Spectral Absorptivity of a Pulsed Discharge Plasma from the Spectral Density of Its Radiance—F. A. Charnaya. 25, 11 (1968) [25, 24 (1968)]

CHEBOTAEV, V. P.

Isotopic Structure of the 1.5295 Millimicron Laser Line of Mercury—V. P. Chebotaev. 25, 267 (1968) [25, 477 (1968)]

CHERENKOVSKII, V.

Depolarizing Collisions of Excited Thallium Atoms with Inert Gases—S. Teplova, M. Chaika, and V. Cherenkovskii. 25, 189 (1968) [25, 346 (1968)]

CHERKASOV, A. S.

Influence of Oxygen on Spectral and Fluorometric Characteristics of Solutions of Phthalimide Derivatives—T. V. Veselova, I. I. Reznikova, A. S. Cherkasov, and V. I. Shirokov. 25, 50 (1968) [25, 98 (1968)]

Evidence of the Radiating-Centers Inhomogeneity of Crystalline Anthracene in Fluorometric Phase Spectra—L. A. Limareva, A. S. Cherkasov, and V. I. Shirokov. 25, 132 (1968) [25, 249 (1968)]

CHIZHIKOVA, Z. A.

Dependence of Two-Photon Absorption in the Stilbene Crystal on the Direction of Light Polarization—M. D. Galanin and Z. A. Chizhikova. 25, 57 (1968) [25, 113 1968)]

CHUMICHEV, R. F.

Polarization Properties of Multilayer Dielectric Mirrors—B. V. Rybakov, S. S. Skulachenko, R. F. Chumichev, and I. I. Yudin. 25, 317 (1968) [25, 572 (1968)]

DANIEL, E. V.

Density of Particles in the Surface Discharge Channel—E. V. Daniel. 25, 96 (1968) [25, 179 (1968)]

DEDUSHKEVICH, V. V.

Neodymium Glass Laser with Plane-Polarized Emission—V. V. Dedushkevich, Yu. P. Ivanov, D. I. Perlov, and V. S. Savodchenko. 25, 331 (1968) [25, 594 (1968)]

DEGINA, S. V.

The Nonelementary Nature of the Contour of the Green II Band in the Luminescence Spectrum of the ZnS:Cu, Cl Phosphor—S. V. Degina, L. S. Revzin, and L. M. Shapiro. 25, 191 (1968) [25, 350 (1968)]

DENISYUK, Yu. N.

On One Property of Three-Dimensional Holograms Taken in Immediate Proximity to the Object—Yu. N. Denisyuk and V. I. Sikhanov. 25, 166 (1968) [25, 308 (1968)]

On One Consequence of the Reciprocity Theorem in Holography—Yu. N. Denisyuk and M. M. Parkhomenko. 25, 433 (1969) [25, 775 (1969)]

Production of High-Quality Holograms of Three-Dimensional Diffuse Objects with the Use of Single-Mode Ruby Lasers—D. I. Staselko, A. G. Smirnov, and Yu. N. Denisyuk. 25, 505 (1968) [25, 910 (1968)]

DERKACHEVA, L. D.

Amplification of Stimulated Raman Scattering by Dyes—L. D. Derkacheva and A. I. Sokolovskaya. 25, 244 (1968) [25, 447 (1968)]

Stimulated Luminescence of Dyes in the 720–920 nm Region—L. D. Derkacheva, A. I. Krymova, A. F. Vompe, and I. I. Levkoev. 25, 404 (1969) [25, 723 (1969)]

DMITRIEVSKII, O. D.

Pulse Photoexcitation of Acridine Dye Adsorbates—O. D. Dmitrievskii. 25, 492 (1968) [25, 883 (1968)]

DOKUNIKHIN, N. S.

The Relationship between Quasi-Line Spectra and the Process of Crystallization—N. S. Dokunikhin, V. A. Kizel, M. N. Sapozhnikov, and S. L. Solodar. 25, 42 (1968) [25, 85 (1968)]

DOLGOV-SAVELEV, G. G.

Cross Sections for the Excitation of the K Series of Argon by Electron Collision—G. G. Dolgov-Savelev and V. E. Panchenko. 25, 270 (1968) [25, 484 (1968)]

DOMELUNKSEN, V. G.

Influence of the Mirror Motion in a Three-Mirror Resonator on the Generation Power—V. G. Domelunksen and T. B. Tolchinskaya. 25, 91 (1968) [25, 170 (1968)]

DONTSOVA, V. V.

Measurement of the Divergence of the Radiation of Gas Lasers Operating in TEM_{nm} Modes—L. Ya. Gustyr and V. V. Dontsova. 25, 530 (1968) [25, 958 (1968)]

DOVGER, L. S.

Characteristics of the Optical Transmission of Phototropic Shutters and Their Effect on Laser Parameters—L. S. Dovger, B. A. Ermakov, and A. V. Lukin. 25, 346 (1968) [25, 617 (1968)]

DUDKIN, V. A.

On the Velocity Distribution Function in the Case of Collisions of the Second Kind—V. A. Dudkin. 25, 99 (1968) [25, 185 (1968)]

EGOROVA, V. F.

Peakless Regime and Mode Width of a Continuous Laser—N. M. Galaktionova, V. F. Egorova, and A. A. Mak. 25, 164 (1968) [25, 305 (1968)]

ELYASHEVICH, M. A.

Transition from the Quadratic to the Linear Stark Effect for Spectral Lines of the Lithium Atom. Calculation of the Splitting of Energy Levels—M. A. Elyashevich and V. I. Tkachyeva. 25, 5, (1968) [25, 12 (1968)]

EREMENKO, V. V.

Anisotropy of the g-Tensor of the Er^{3+} Ion in Erbium-Gallium Garnet—A. I. Belyaeva, V. V. Eremenko, V. N. Pavlov, and A. V. Antonov. 25, 55 (1968) [25, 109 1968)]

ERMAKOV, B. A.

Characteristics of the Optical Transmission of Phototropic Shutters and Their Effect on Laser Parameters—L. S. Dovger, B. A. Ermakov, and A. V. Lukin. 25, 346 (1968) [25, 617 (1968)]

ESKIN, V. A.

A Study of the Intensities and Polarizations of Second-Order Lines in Raman Spectra of Liquids—N. K. Sidorov, L. S. Stalmakhova, and V. A. Eskin. 25, 104 (1968) [25, 194 (1968)]

EVDOKIMOV, V. M.

Calculation of the Electron Shells of an Atom by the Quantum Field-Theory Method—V. M. Evdokimov. 25, 439 (1968) [25, 781 (1968)]

FIALKOVSKAYA, O. V.

A Study of Vibrational Processes in Molecules with Different Symmetries but Similar Masses and Structures—O. V. Fialkovskaya and A. V. Nefedov. 25, 428 (1969) [25, 766 (1969)]

FINKEL, A. G.

Theoretical and Experimental Investigation of the Absolute Intensities of Bands in the Infrared Spectra of Polyatomic Molecules I: Acetone—V. I. Vakhlueva, A. G. Finkel, L. M. Sverdlov, and L. A. Zaitseva. 25, 160 (1968) [25, 299 (1968)]

Theoretical and Experimental Investigation of Absolute Band Intensities in the Infrared Spectra of Polyatomic Molecules. II. Acetaldehyde—V. I. Vakhlyueva, A. G. Finkel, L. M. Sverdlov, and A. I. Andreeva. 25, 234 (1968) [25, 433 (1968)]

FOGEL, Ya. M.
On the Continuous Spectra of Inert Gases in the Vacuum-Ultraviolet Region Obtained by Means of a Gas-Jet Source—E. T. Verkhovtseva, Ya. M. Fogel, and V. S. Osyka. 25, 238 (1968) [25, 440 (1968)]

FOMIN, V. V.
Quantum Mechanical Analysis of the Fine Structure in the Vibration—Rotation Spectrum of Water Vapor. I: Procedures for the Calculation of Positions, Intensities, and Half-Widths of Lines, and of Their Absorption Coefficients—V. E. Zuev, I. I. Ippolitov, Yu. S. Makushkin, A. A. Orlov, and V. V. Fomin. 25, 17 (1968) [25, 36 (1968)]

FRANKEVICH, E. L.
Effect of an Electric Field on the Delayed Fluorescence of Anthracene—B. M. Rumyantsev and E. L. Frankevich. 25, 518 (1968) [25, 938 (1968)]

FRANK-KAMENETSKII, M. D.
The Nature of the Long-Wavelength Absorption and Luminescence Bands of Dyes—V. I. Permogorov, L. A. Serdyukova, and M. D. Frank-Kamenetskii. 25, 38 (1968) [25, 77 (1968)]

FRISH, S. E.
Transfer of Excitation fom the ^1p to the ^1D Level of Helium—S. E. Frish and Yu. Z. Ionikh. 25, 91 (1968) [25, 171 (1968)]

The Decay of the Metastable 2 ^1S State of Helium in a Discharge—Yu. Z. Ionikh and S. E. Frish. 25, 345 (1968) [25, 615 (1968)]

GALAKTIONOVA, N. M.
Peakless Regime and Mode Width of a Continuous Laser—N. M. Galaktionova, V. F. Egorova, and A. A. Mak. 25, 164 (1968) [25, 305 (1968)]

GALANIN, M. D.
Dependence of Two-Photon Absorption in the Stilbene Crystal on the Direction of Light Polarization—M. D. Galanin and Z. A. Chizhikova. 25, 57 (1968) [25, 113 1968)]

GALIMOV, D. G.
Absorption Spectrum of Tetravalent Chromium in Glasses—S. P. Lunkin, D. G. Galimov, and D. M. Yudin. 25, 323 (1968) [25, 583 (1968)]

GALKIN, V. D.
Determination of g Factors of Excited Levels of Neutral and Singly Ionized Rubidium—G. P. Anisimova, V. D. Galkin, and R. I. Semenov. 25, 176 (1968) [25, 322 (1968)]

GALPERINA, N. I.
On the Effect of the Charge-Transfer State on the Optical Properties of Substituted Benzenes—N. I. Galperina, V. M. Berenfeld, V. P. Bazov, and V. A. Krongauz. 25, 115 (1968) [25, 216 (1968)]

GASTILOVICH, E. A.
The Effect of Intramolecular Interactions on the C≡C Absorption Band Intensity in the Infrared Spectra of Some Acetylene Derivatives with Conjugated Bonds—E. A. Gastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova. 25, 429 (1969) [25, 769 (1969)]

GAVRILOV, S. P.
Instrumental Contour Distortion in Faraday Rotation Spectroscopy—V. K. Miloslavskii, V. V. Karmazin, and S. P. Gavrilov. 25, 338 (1968) [25, 605 (1968)]

GEORGOBIANI, A. N.
Dependence of the Electroluminescence Intensity of CsI-Tl on Exciting Voltage Parameters—A. N. Georgobiani and E. P. Solodovnikova. 25, 259 (1968) [25, 468 (1968)]

GERLOVIN, Ya. I.
Probability Values for Spontaneous Emission by Gas and Vapor Molecules Corresponding to Absorption Bands in the 5.0-9.0 Micron Range—Ya. I. Gerlovin and I. N. Orlova 25, 33 (1968) [25, 67 (1968)]

GEVORKYAN, V. A.
Photoluminescence of Strontium Borate Activated by Samarium—M. E. Movsesyan and V. A. Gevorkyan. 25, 156 (1968) [25, 294 (1968)]

GEZALOV, Kh. V.
Calculation of Sodium and Potassium Atoms by the Hartree—Fok Method with Complete Self-Consistency—Kh. V. Gezalov and A. V. Ivanov. 25, 355 (1969) [25, 629 (1969)]

GIRIN, O. P.
Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules. II: Diatomic Molecules (Infrared Spectra of HCl)—O. P. Girin, N. G. Bakhshiev, and O. I. Maksimova. 25, 22 (1968) [25, 45 (1968)]

Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules III: Polyatomic Molecules (Intensities of the Infrared Spectra of HCN and DCN)—O. P. Girin, S. Kh. Akopyan, and N. G. Bakhshiev. 25, 111 (1968) [25, 207 (1968)]

On the Necessity of Correcting Observed Absorption Spectra of Solids in the Study of Their Microcharacteristics—O. P. Girin, V. S. Libov, and N. G. Bakhshiev. 25, 237 (1968) [25, 438 (1968)]

GLYADKOVSKII, V. I.
On the Nature of Anthracene Aggregation in Solution—L. A. Klimova, G. N. Nersesova, and V. I. Glyadkovskii. 25, 153 (1968) [25, 290 (1968)]

GOBOV, G. V.
Absorption Spectra at 77°K of n-Paraffin Solutions of Compounds Based on the Biphenyl Structure—G. V. Gobov, R. N. Nurmukhametov, and L. A. Nakhimovskaya. 25, 120 (1968) [25, 227 (1968)]

GOFMEISTER, V. P.
On the Mechanism of Excitation in a Hollow Cathode in Neon—V. P. Gofmeister and Yu. M. Kagan. 25, 185 (1968) [25, 337 (1968)]

GOLDINA, N. D.
Thin Scattering Film in the Field of a Standing Wave of Optical Frequencies and Its Use in Selecting Modes of an Optical Resonator—Yu. V. Troitskii and N. D. Goldina. 25, 255 (1968) [25, 462 (1968)]

GOLDMAN, A. G.
Phosphorescence Emission and Gudden-Pohl Effect Spectra of Sulfoselenides $Zn(S_{100-n}Se_n)$—Cu,I—A. G. Goldman, B. N. Korolko, and S. F. Lysenko. 25, 324 (1968) [25, 584 (1968)]

Gudden-Pohl Effect and Sensitizing of Manganese in Zinc Sulfide Phosphors—A. G. Goldman and I. L. Romanenko. 25, 399 (1969) [25, 713 (1969)]

GONCHUKOV, S. A.
Effect of Collisions on Certain Characteristics of the He-Ne Laser—S. A. Gonchukov, G. A. Mikhnendo, and E. D. Protsenko. 25, 305 (1968) [25, 550 (1968)]

GOROBETS, B. S.
On the Luminescence of Fluorapatite Activated by Rare-Earth Elements—B. S. Gorobets. 25, 154 (1968) [25, 292 (1968)]

GREBENSHCHIKOV, D. M.
Study of the Temperature Dependence of the Phosphorescence of Coronene in n-Paraffins—D. M. Grebenshchikov. 25, 200 (1968) [25, 368 (1968)]
Influence of Solution Structure and of Oxygen on the Phosphorescence of Coronene in Hexyl Alcohol—D. M. Grebenshchikov. 25, 485 (1968) [25, 869 (1968)]

GRECHIKHIN, L. I.
The Influence of Intermolecular Electric Fields on the Probabilities of Dipole Transitions—L. I. Grechikhin. 25, 368 (1969) [25, 655 (1969)]

GREISER, A. I.
Calculation of Hartree–Fok Atomic Wave Functions and Energies in Terms of Perturbation Theory—A. I. Greiser. 25, 333 (1968) [25, 598 (1968)]

GRENISHIN, S. G.
Measurement of the Emissivity of Nitrogen, Oxygen, and Air in the Vacuum Ultraviolet Region of the Spectrum—S. G. Grenishin, A. F. Simonenko, and G. P. Startsev. 25, 461 (1968) [25, 825 (1968)]

GRIBOV, L. A.
The Construction of a Parametric Theory of Intensities in the Infrared Spectra of Polyatomic Molecules—L. A. Gribov. 25, 26 (1968) [25, 53 (1968)]

GRISHINA, G. I.
Electronic Absorption and Luminescence Spectra and Characteristics of the Electronic Structure of Arylpyrazolines—R. N. Nurmukhametov, N. A. Lodygin, and G. I. Grishina. 25, 118 (1968) [25, 222 (1968)]

GRUZDEV, P. F.
Oscillator Strengths of the Resonance Lines of GeI, AsII, SnI, SbII, PbI, and BiII—P. F. Gruzdev. 25, 1 (1968) [25, 3 (1968)]

GUBIN, M. A.
Pressure Dependence of the Line Width of the $3s_2$–$3p_4$ Transition of Neon—M. A. Gubin, A. I. Popov, and E. D. Protsenko. 25, 421 (1969) [25, 756 (1969)]

GUGEL, B. M.
The Effect of Copper Impurity on the Cathodoluminescence of ZnS-CdS–Ag—B. M. Gugel and A. Ya. Krupenina. 25, 257 (1968) [25, 465 (1968)]

GUREVICH, D. B.
Relaxation Method for Determining the Nature of Continuum in Nonequilibrium Arc Discharges—V. Ya. Aleksandrov, D. B. Gurevich, and I. V. Podmoshenskii. 25, 378 (1969) [25, 674 (1969)]

GUROV, F. I.
Concentration Effect on the Decay Time of the Naphthalene and Phenanthrene Phosphorescence—T. N. Bolotnikova, T. M. Naumova, F. I. Gurov, and V. G. Kazachkov. 25, 291 (1968) [25, 523 (1968)]

GUSTYR, L. Ya.
Measurement of the Divergence of the Radiation of Gas Lasers Operating in TEM_{nm} Modes—L. Ya. Gustyr and V. V. Dontsova. 25, 530 (1968) [25, 958 (1968)]

IMANOV, L. M.
Rotational Constants, Dipole Moment, and Structure of the Transform of n–C_3H_4O—L. M. Imanov, A. A. Abdurakhmanov, and R. A. Ragimova. 25, 528 (1968) [25, 954 (1968)]

IONIKH, Yu. Z.
Transfer of Excitation fom the ^1p to the ^1D Level of Helium—S. E. Frish and Yu. Z. Ionikh. 25, 91 (1968) [25, 171 (1968)]
The Decay of the Metastable $2\,^1S$ State of Helium in a Discharge—Yu. Z. Ionikh and S. E. Frish. 25, 345 (1968) [25, 615 (1968)]

IPPOLITOV, I. I.
Quantum Mechanical Analysis of the Fine Structure in the Vibration–Rotation Spectrum of Water Vapor. I: Procedures for the Calculation of Positions, Intensities, and Half-Widths of Lines, and of Their Absorption Coefficients—V. E. Zuev, I. I. Ippolitov, Yu. S. Makushkin, A. A. Orlov, and V. V. Fomin. 25, 17 (1968) [25, 36 (1968)]

IVANOV, A. V.
Calculation of Sodium and Potassium Atoms by the Hartree–Fok Method with Complete Self-Consistency—Kh. V. Gezalov and A. V. Ivanov. 25, 355 (1969) [25, 629 (1969)]

IVANOV, Yu. P.
Neodymium Glass Laser with Plane-Polarized Emission—V. V. Dedushkevich, Yu. P. Ivanov, D. I. Perlov, and V. S. Savodchenko. 25, 331 (1968) [25, 594 (1968)]

IVANOVA, N. I.
The Luminescence of KI–AgI—N. I. Ivanova and I. V. Nedzvetskaya. 25, 434 (1969) [25, 776 (1969)]

IVANOVA, T. M.
Variation of Raman Line Intensities with the Frequency of the Exciting Light—P. P. Shorygin and T. M. Ivanova. 25, 107 (1968) [25, 200 (1968)]

KAGAN, Yu. M.
On Contracted High Frequency Neon Discharge—S. D. Vagner, Yu. M. Kagan and G. Yu. Krustalyev. 25, 88 (1968) [25, 166 (1968)]
On the Mechanism of Excitation in a Hollow Cathode in Neon—V. P. Gofmeister and Yu. M. Kagan. 25, 185 (1968) [25, 337 (1968)]

KALITEEVSKII, N. I.
Coherence in Optics, by M. Francon and S. Slansky—N. I. Kaliteevskii. 25, 352 (1968) [25, 627 (1968)]

KALVINA, I. N.
Spectroscopic Investigation of an Ultrahigh-Frequency Discharge in Inert Gases—I. N. Kalvina, S. M. Leonteva, and L. G. Shuvalova. 25, 93 (1968) [25, 173 (1968)]

KAMINSKAS, V. A.
Application of the Extended Method of Calculation to the Theoretical Determination of the Fine Structure of Atom and Ion Terms in the $1s^22s^22p^N$ Configuration—V. A. Kaminskas and A. P. Yutsis. 25, 423 (1969) [25, 759 (1969)]

KAPLAN, I. G.
Calculation of the Photoionization Cross Sections of Molecular Systems. II: Ethylene, Butadiene, and Benzene—I. G. Kaplan and A. P. Markin. 25, 275 (1968) [25, 493 (1968)]

KARMAZIN, V. V.
Instrumental Contour Distortion in Faraday Rotation Spectroscopy—V. K. Miloslavskii, V. V. Karmazin, and S. P. Gavrilov. 25, 338 (1968) [25, 605 (1968)]

KAZACHKOV, V. G.
Concentration Effect on the Decay Time of the Naphthalene and Phenanthrene Phosphorescence—T. N. Bolotnikova, T. M. Naumova, F. I. Gurov, and V. G. Kazachkov. 25, 291 (1968) [25, 523 (1968)]

KELOV, K.
On the Stability of a Gaussian Beam in a Nonuniformly Amplifying Medium—V. V. Lebedeva, A. I. Odintsov, and K. Kelov. 25, 236 (1968) [25, 436 (1968)]

KHACHKURUZOV, G. A.
Multiplet States of Diatomic Molecules with Spin–Orbit Coupling Intermediate between Hund's Cases a and b—G. N. Yurkov and G. A. Khachkuruzov. 25, 459 (1968) [25, 820 (1968)]

KHAKHAEV, A. D.
The Broadening of Excited Neon Levels Due to Interaction with Normal Atoms—S. I. Krylova, L. A. Luizova, and A. D. Khakhaev. 25, 87 (1968) [25, 165 (1968)]

KHAN-MAGOMETOVA, Sh. D.
The Dependence of the Mean Lifetime of the Excited State and the Photoluminescence Yield of Anthracene on the Concentration of Impurities Produced by Irradiation—Sh. D. Khan-Magometova. 25, 203 (1968) [25, 373 (1968)]

KHAZOV, L. D.
Induced Mandelstam-Brillouin Scattering (IMBS) in Glass in the Case of Selffocusing of the Monopulse Laser Beam—L. D. Khazov and A. N. Shestov. 25, 248 (1968) [25, 453 (1968)]

KHMELYEVTSOV, S. S.
The Relationship between the Spatial Coherence of Laser (1968)]

KHODOVOI, V. A.
Study of the Properties of the He–Ne Laser with a Small Discharge Space—V. E. Privalov and V. A. Khodovoi. 25, 173 (1968) [25, 318 (1968)]

KHRIPUNOV, P. K.
Optical Characteristics of Solid Films of Dyes in the Region of Electronic Bands—V. M. Korovina, L. I. Alperovich, N. G. Bakhshiev, and P. K. Khripunov. 25, 126 (1968) [25, 236 (1968)]

KHRISTENKO, S. V.
Application of Coulomb Green's Function to the Calculation of the Interaction of a Hydrogen Atom with the Field of a Light Wave in Second-Order Perturbation Theory—S. I. Vetchinkin and S. V. Khristenko. 25, 365 (1969) [25, 650 (1969)]

Structure of the Perturbation Series for the Corrections to Dipole Transition Probabilities—S. I. Vetchinkin and S. V. Khristenko. 25, 444 (1968) [25, 791 (1968)]

KHVOSTENKO, G.
Hanle Effect for Different Excitation Times of Interfering Levels—G. Khvostenko and M. Chaika. 25, 181 (1968) [25, 330 (1968)]

Stark Effect on Hyperfine Levels of the $7P_{3/2}$ State of Cesium—G. Khvostenko and M. Chaika. 25, 246 (1968) [25, 450 (1968)]

KINAKH, S. P.
Experimental Investigation of the Discrete Deviation of Optical Beams Based on the Electrooptical Effect in ADP-Type Crystals—O. G. Vlokh, L. F. Lutsiv-Shumskii, and S. P. Kinakh. 25, 228 (1968) [25, 424 (1968)]

KIRILYUK, Z. O.
Reproduction of Contrast by an Optical System in the Case of Imaging of Two Lines Darker than the Surrounding Field and the Resolution Limit as a Function of Several Factors —L. P. Moroz and Z. O. Kirilyuk. 25, 417 (1969) [25, 748 (1969)]

KIZEL, V. A.
The Relationship between Quasi-Line Spectra and the Process of Crystallization—N. S. Dokunikhin, V. A. Kizel, M. N. Sapozhnikov, and S. L. Solodar. 25, 42 (1968) [25, 85 (1968)]

KLIMOVA, L. A.
On the Nature of Anthracene Aggregation in Solution—L. A. Klimova, G. N. Nersesova, and V. I. Glyadkovskii. 25, 153 (1968) [25, 290 (1968)]

KLIMUSHEVA, G. V.
The Vibronic Spectra of Crystals of Certain p-Dialkylbenzenes—G. V. Klimusheva, B. M. Lerman, N. I. Tyun'kina, and R. V. Yaremko. 25, 129 (1968) [25, 243 (1968)]

Characteristics of the Absorption Spectrum of the Fluorobenzene Crystal—G. V. Klimusheva, A. F. Prikhotko, and G. M. Soroka. 25, 197 (1968) [25, 361 (1968)]

KLIOT-DASHINSKII, M. I.
Competition of Generation on Two Transitions with a Common Upper Level in a Traveling Wave Maser—M. I. Kliot-Dashinskii. 25, 229 (1968) [25, 426 (1968)]

KLOCHKOV, V. P.
The Discrete Fluorescence Spectrum of 9-Methylanthracene Vapor—V. P. Klochkov and S. M. Korotkov. 25, 538 (1968) [25, 970 (1968)]

KLYUCHAREV, A. N.
Effective Cross Sections for the Electronic Excitation of CsI Lines—A. N. Klyucharev. 25, 252 (1968) [25, 458 (1968)]

KOMAROVA, N. V.
The Effect of Intramolecular Interactions on the C=C Absorption Band—A. Kh. Gastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova. 25, 429 (1969) [25, 769 (1969)]

KOMAROVSKII, V. A.
Oscillator Strengths of the Spectral Lines of Eu—V. A. Komarovskii, N. P. Penkin, and L. N. Shabanova. 25, 81 (1968) [25, 155 (1968)]

KOMISSAROV, N. M.
Determination of the Shape and Width of Absorption Lines of the Hydroxyl Molecule by the Curve of Growth Method—N. M. Komissarov. 25, 463 (1968) [25, 829 (1968)]

KONAEVA, G. Ya.
Photooptical Characteristics of a Pile of Fiber-Optic Components—G. Ya. Konaeva, D. K. Sattarov, and L. S. Trofimova. 25, 510 (1968) [25, 922 (1968)]

KONKOV, A. A.
On the Intensity of Emission Continuum of the Negative Nitrogen Atom—A. A. Konkov, V. M. Nikolaev, and Yu. A. Plastinin. 25, 380 (1969) [25, 679 (1969)]

KONONENKO, L. I.
Fluorescence of Benzene Solutions of Rare Earth Complexes with Tenoyltrifluoro-acetone and Rhodamine-C—L. I. Kononenko and M. A. Tishchenko. 25, 392 (1969) [25, 701 (1969)]

KOPTEV, G. S.
The Determination of Force Constants by a Matching Method—Yu. N. Panchenko, G. S. Koptev, N. F. Stepanov, and V. M. Tatevskii. 25, 350 (1968) [25, 623 (1968)]

KORNILOV, E. A.
Measurement of the Time Behavior of Temperature in a Plasma-Beam Discharge—E. F. Lifshits, O. F. Kovpik and E. A. Kornilov. 25, 373 (1969) [25, 664 (1969)]

KOROLEV, R. A.
Excitation of Stimulated Raman Scattering in a Dispersing Cavity—R. A. Korolev, A. I. Odintsov, and P. A. Tandelov. 25, 241 (1968) [25, 444 (1968)]

KOROLKO, B. N.
Phosphorescence Emission and Gudden–Pohl Effect Spectra of Sulfoselenides $Zn(S_{100-n}Se_n)$–Cu,I—A. G. Goldman, B. N. Korolko, and S. F. Lysenko. 25, 324 (1968) [25, 584 (1968)]

Electroluminescence Spectra of ZnSe–Cu,I and Temperature Dependence of the Luminescence—B. N. Korolko and S. F. Lysenko. 25, 325 (1968) [25, 585 (1968)]

KOROLKOV, V. S.
On the Crystalline Field Screening Effects for the $4f^x$ Shells of Rare Earth Ions and Nuclear Moments. II—A. G. Makhanek and V. S. Korolkov. 25, 53 (1968) [25, 104 1968)]

KOROLKOVA, O. N.
Transfer of Electronic Excitation Energy in Rigid Solutions of Organic Luminors—Ya. A. Terskoi, V. G. Brudz, and O. N. Korolkova. 25, 287 (1968) [25, 516 (1968)]

KOROLOV, F. A.
Monochromatic Light Modulation by Means of Multiple-Beam Interference—F. A. Korolov and G. M. Melkhis. 25, 148 (1968) [25, 280 (1968)]

KOROLYEV, F. A.
Power Amplification of a Laser Pulse Acting on a Substance in the Presence of Induced Mandelstam-Brillouin Backscattering—F. A. Korolyev, Z. A. Baskakova, A. I. Odintsov, and G. Singurel. 25, 72 (1968) [25, 142 (1968)]

KOROTKOV, S. M.
The Discrete Fluorescence Spectrum of 9-Methylanthracene Vapor—V. P. Klochkov and S. M. Korotkov. 25, 538 (1968) [25, 970 (1968)]

KOROVINA, V. M.
Optical Characteristics of Solid Films of Dyes in the Region of Electronic Bands—V. M. Korovina, L. I. Alperovich, N. G. Bakhshiev, and P. K. Khripunov. 25, 126 (1968) [25, 236 (1968)]

Determination of the Einstein-Coefficient Spectra of Molecules of Aromatic Compounds in Solution in the Electronic-Absorption-Band Region—V. M. Korovina and N. G. Bakhshiev. 25, 162 (1968) [25, 302 (1968)]

Determination of the Absorption Band Intensities of Anthracene in an Absorbing Solvent on the Basis of Dispersion Measurements—V. M. Korovina and L. I. Alperovich. 25, 282 (1968) [25, 506 (1968)]

KOTSUBANOV, V. D.
Generation of Light in Solutions of Dyes in the 550–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 159 (1968) [25, 297 (1968)]

On the Relaxation of Upper Triplet States in Complex Organic Molecules—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 251 (1968) [25, 457 (1968)]

Laser Action in Solutions of Organic Luminophors in the 400–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 406 (1969) [25, 727 (1969)]

KOVALSKII, L. V.
Specular Reflection from a Mat Surface with Coarse Microtopography—V. K. Polyanskii, L. V. Kovalskii, and T. L. Milovidova. 25, 415 (1969) [25, 744 (1969)]

KOVPIK, O. F.
Measurement of the Time Behavior of Temperature in a Plasma-Beam Discharge—E. F. Lifshits, O. F. Kovpik and E. A. Kornilov. 25, 373 (1969) [25, 664 (1969)]

KOZLOV, Yu. G.
Suppression of Phase-Difference Fluctuations in Interferometric Measurements—Yu. G. Kozlov. 25, 424 (1969) [25, 761 (1969)]

KOZULIN, A. T.
Force Constants of Pyramidal Molecules of the Type XY_3—A. T. Kozulin. 25, 192 (1968) [25, 353 (1968)]

KOZYREVA, E. B.
Temperature Dependence of Luminescence Spectra of Silver Bromide Crystals—E. B. Kozyreva. 25, 293 (1968) [25,

KRAULYINA, E. K.
Collisions between Excited Mercury Atoms and Unexcited Thallium Atoms—E. K. Kraulyina, A. E. Lezdin, and O. S. Sametis. 25, 523 (1968) [25, 947 (1968)]

KRISTOFEL, N. N.
Optical Electronic Transitions between Local and Zone States in Impurity Centers—N. N. Kristofel and G. S. Zavt. 25, 395 (1969) [25, 705 (1969)]

KRIVCHENKOVA, V. S.
Absolute Spontaneous Transition Probabilities in the Ne Atom—V. S. Krivchenkova. 25, 536 (1968) [25, 966 (1968)]

KROITORU, S. G.
Reflection and Photoluminescence Spectra of Gallium Phosphide Crystals—S. G. Kroitoru, S. L. Pyshkin, S. I. Radautsan, and V. V. Sobolev. 25, 207 (1968) [25, 382 (1968)]

KRONGAUZ, V. A.
On the Effect of the Charge-Transfer State on the Optical Properties of Substituted Benzenes—N. I. Galperina, V. M. Berenfeld, V. P. Bazov, and V. A. Krongauz. 25, 115 (1968) [25, 216 (1968)]

KRUPENINA, A. Ya.
The Effect of Copper Impurity on the Cathodoluminescence of ZnS-CdS–Ag—B. M. Gugel and A. Ya. Krupenina. 25, 257 (1968) [25, 465 (1968)]

KRUSTALYEV, G. Yu.
On Contracted High Frequency Neon Discharge—S. D. Vagner, Yu. M. Kagan and G. Yu. Krustalyev. 25, 88 (1968) [25, 166 (1968)]

KRYLOVA, S. I.
The Broadening of Excited Neon Levels Due to Interaction with Normal Atoms—S. I. Krylova, L. A. Luizova, and A. D. Khakhaev. 25, 87 (1968) [25, 165 (1968)]

KRYMOVA, A. I.
Stimulated Luminescence of Dyes in the 720–920 nm Region—L. D. Derkacheva, A. I. Krymova, A. F. Vompe, and I. I. Levkoev. 25, 404 (1969) [25, 723 (1969)]

KRYZHANOVSKII, B. P.
Infrared Reflection from Semiconducting Stannic Oxide Layers—B. P. Kryzhanovskii. 25, 240 (1968) [25, 442 (1968)]

Some Optical and Electrical Properties of Thin Films of Cu_3PSe, Cu_3PSeS_x and Cu_3PSeI_x—B. P. Kryzhanovskii. 25, 343 (1968) [25, 613 (1968)]

KUKETAEV, T. A.
Optical Structure of Luminescence Centers in Crystals Activated by Noble Metal Ions—N. E. Lushchik and T. A. Kuketaev. 25, 495 (1968) [25, 889 (1968)]

KUZNETSOVA, T. I.
On the Gas Laser Regime at High Pressures—T. L. Andreeva and T. I. Kuznetsova. 25, 141 (1968) [25, 266 (1968)]

LATYSHEV, A. N.
Attenuation of Light by Absorbing Particles with a Small Real Part of the Refractive Index—A. N. Latyshev, A. S. Sivkov, and N. V. Teselkina. 25, 313 (1968) [25, 565 (1968)]

LEBEDEVA, V. V.
On the Stability of a Gaussian Beam in a Nonuniformly Amplifying Medium—V. V. Lebedeva, A. I. Odintsov, and K. Kelov. 25, 236 (1968) [25, 436 (1968)]

LENSKII, A.
Optical Transfer Function of Optical Systems with Third- and Fifth-Order Spherical Aberration—A. Lenskii. 25, 66 (1968) [25, 129 (1968)]

Optical Transfer Function in the Region of Low Spatial Frequencies—A. Lenskii. 25, 537 (1968) [25, 968 (1968)]

LEONTEVA, S. M.
Spectroscopic Investigation of an Ultrahigh-Frequency Discharge in Inert Gases—I. N. Kalvina, S. M. Leonteva, and L. G. Shuvalova. 25, 93 (1968) [25, 173 (1968)]

LERMAN, B. M.
The Vibronic Spectra of Crystals of Certain p-Dialkylbenzenes—G. V. Klimusheva, B. M. Lerman, N. I. Tyun'kina, and R. V. Yaremko. 25, 129 (1968) [25, 243 (1968)]

LEVKOEV, I. I.
Stimulated Luminescence of Dyes in the 720–920 nm Region—L. D. Derkacheva, A. I. Krymova, A. F. Vompe, and I. I. Levkoev. 25, 404 (1969) [25, 723 (1969)]

LEZDIN, A. E.
Collisions between Excited Mercury Atoms and Unexcited Thallium Atoms—E. K. Kraulyina, A. E. Lezdin, and O. S. Sametis. 25, 523 (1968) [25, 947 (1968)]

LIBOV, V. S.
On the Necessity of Correcting Observed Absorption Spectra of Solids in the Study of Their Microcharacteristics—O. P. Girin, V. S. Libov, and N. G. Bakhshiev. 25, 237 (1968) [25, 438 (1968)]
New Method for the Determination of the Spectroscopic Characteristics of Molecules in a Condensed Medium—V. S.

LIFSHITS, E. F.
Measurement of the Time Behavior of Temperature in a Plasma-Beam Discharge—E. F. Lifshits, O. F. Kovpik and E. A. Kornilov. 25, 373 (1969) [25, 664 (1969)]

LIMAREVA, L. A.
Evidence of the Radiating-Centers Inhomogeneity of Crystalline Anthracene in Fluorometric Phase Spectra—L. A. Limareva, A. S. Cherkasov, and V. I. Shirokov. 25, 132 (1968) [25, 249 (1968)]

LISITSA, M. P.
Fermi Resonance in Molecular Crystals—M. P. Lisitsa and A. M. Yaremko. 25, 482 (1968) [25, 864 (1968)]

LIVANOVA, D. D.
Cumulative Luminescence in CaF–Gd^{3+}, Yb^{3+}—D. D. Livanova, I. G. Saitkulov, and A. L. Stolov. 25, 340 (1968) [25, 609 (1968)]

LODYGIN, N. A.
Electronic Absorption and Luminescence Spectra and Characteristics of the Electronic Structure of Arylpyrazolines—R. N. Nurmukhametov, N. A. Lodygin, and G. I. Grishina. 25, 118 (1968) [25, 222 (1968)]

LOPINA, S. V.
Q Switching of a Laser Based on the Triplet-Triplet Transitions of Organic Molecules—E. G. Berzing, S. V. Lopina, Yu. V. Naboikin, and Yu. A. Tiunov. 25, 227 (1968) [25, 421 (1968)]

LUIZOVA, L. A.
The Broadening of Excited Neon Levels Due to Interaction with Normal Atoms—S. I. Krylova, L. A. Luizova, and A. D. Khakhaev. 25, 87 (1968) [25, 165 (1968)]

LUKIN, A. V.
Characteristics of the Optical Transmission of Phototropic Shutters and Their Effect on Laser Parameters—L. S. Dovger, B. A. Ermakov, and A. V. Lukin. 25, 346 (1968) [25, 617 (1968)]

LUNKIN, S. P.
Absorption Spectrum of Tetravalent Chromium in Glasses—S. P. Lunkin, D. G. Galimov, and D. M. Yudin. 25, 323 (1968) [25, 583 (1968)]

LUSHCHIK, N. E.
Optical Structure of Luminescence Centers in Crystals Activated by Noble Metal Ions—N. E. Lushchik and T. A. Kuketaev. 25, 495 (1968) [25, 889 (1968)]

LUTSIV-SHUMSKII, L. F.
Experimental Investigation of the Discrete Deviation of Optical Beams Based on the Electrooptical Effect in ADP-Type Crystals—O. G. Vlokh, L. F. Lutsiv-Shumskii, and S. P. Kinakh. 25, 228 (1968) [25, 424 (1968)]

LYSENKO, S. F.
Phosphorescence Emission and Gudden–Pohl Effect Spectra of Sulfoselenides $Zn(S_{100-n}Se_n)$–Cu,I—A. G. Goldman, B. N.
Electroluminescence Spectra of ZnSe–Cu,I and Temperature Dependence of the Luminescence—B. N. Korolko and S. F. Lysenko. 25, 325 (1968) [25, 585 (1968)]

Mak, A. A.
Peakless Regime and Mode Width of a Continuous Laser—N. M. Galaktionova, V. F. Egorova, and A. A. Mak. 25, 164 (1968) [25, 305 (1968)]

MAKAROV, A. P.
Determination of Some Helium Spectral Line Absorption Coefficients from Fabry–Perot Line Profiles—A. P. Makarov. 25, 342 (1968) [25, 611 (1968)]

MAKHANEK, A. G.
On the Crystalline Field Screening Effects for the $4f^x$ Shells of Rare Earth Ions and Nuclear Moments. II—A. G. Makh[illegible]ek and V. S. Korolkov. 25, 53 (1968) [25, 104 1968)]

MAKSIMOVA, O. I.
Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules. II: Diatomic Molecules (Infrared Spectra of HCl)—O. P. Girin, N. G. Bakhshiev, and O. I. Maksimova. 25, 22 (1968) [25, 45 (1968)]
Quantum Mechanical Analysis of the Fine Structure in the Vibration–Rotation Spectrum of Water Vapor. I: Procedures for the Calculation of Positions, Intensities, and

MAKUSHKIN, Yu. S.
Half-Widths of Lines, and of Their Absorption Coefficients—V. E. Zuev, I. I. Ippolitov, Yu. S. Makushkin, A. A. Orlov, and V. V. Fomin. 25, 17 (1968) [25, 36 (1968)]
Sum Rules for the Nonrigid Asymmetrical Top—Yu. S. Makushkin. 25, 76 (1968) [25, 148 (1968)]

MALEEV, V. Ya.
Long-Wavelength Infrared Absorption Spectra of Nucleoside Crystals—V. Ya. Maleev and A. E. Stanevich. 25, 36 (1968) [25, 72 (1968)]

MALISEK, V.
Study of the Distribution of Refractive Index by the Differential-Prism Method—M. Miler and V. Malisek. 25, 70 (1968) [25, 138 (1968)]

MALKES, L. Ya.
Influence of the Nature of a Para-Substituent on the Frequency of the First Electronic Transition in the Stilbene Molecule—T. N. Bolotnikova, L. Ya. Malkes, A. I. Nazarenko, and V. N. Yakovenko. 25, 348 (1968) [25, 621 (1968)]

MAMEDOV, Kh. I.
Quasiline Phosphorescence Spectra of Halogenated Naphthalenes in Paraffins at 55°K. I. Naphthalene, α-fluoronaphthalene, α-fluoronaphthalene-D_7, and α-chloronaphthalene—Kh. I. Mamedov, I. K. Nasibov, and E. N. Niyazova. 25, 386 (1968) [25, 689 (1968)]

MARKIN, A. P.
Calculation of the Photoionization Cross Sections of Molecular Systems. II: Ethylene, Butadiene, and Benzene—I. G. Kaplan and A. P. Markin. 25, 275 (1968) [25, 493 (1968)]

MARUSIN, V. D.
The Relative Brightness and Optical Excitation Functions of Certain Spectral Lines of Mercury—I. P. Bogdanova and V. D. Marusin. 25, 174 (1968) [25, 319 (1968)]

MAZURENKO, Yu. T.
Spectral Dependence of the Degree of Rotational Depolarization of the Fluorescence of Complex Molecules in Viscous Solutions—Yu. T. Mazurenko, N. G. Bakhshiev, and I. V. Piterskaya. 25, 46 (1968) [25, 92 (1968)]
Two New Books on Lasers: Optical Masers, by G. Birnbaum; Solid State Lasers, by M. L. Ter-Mikhaelyan and Yu. G. Turkov—Yu. T. Mazurenko. 25, 353 (1968) [25, 627 (1968)]

MELKHIS, G. M.
Monochromatic Light Modulation by Means of Multiple-Beam Interference—F. A. Korolov and G. M. Melkhis. 25, 148 (1968) [25, 280 (1968)]

MIKHNEDO G. A.
Effect of Collisions on Certain Characteristics of the He–Ne Laser—S. A. Gonchukov, G. A. Mikhnendo, and E. D. Protsenko. 25, 305 (1968) [25, 550 (1968)]

MIKHNOV, S. A.
Effect of Stationary Waves on Spectral and Energy Char-

MILER, M.
Study of the Distribution of Refractive Index by the Differential-Prism Method—M. Miler and V. Malisek. 25, 70 (1968) [25, 138 (1968)]

MILOSLAVSKII, V. K.
Instrumental Contour Distortion in Faraday Rotation Spectroscopy—V. K. Miloslavskii, V. V. Karmazin, and S. P. Gavrilov. 25, 338 (1968) [25, 605 (1968)]

MILOVIDOVA, T. L.
Specular Reflection from a Mat Surface with Coarse Microtopography—V. K. Polyanskii, L. V. Kovalskii, and T. L. Milovidova. 25, 415 (1969) [25, 744 (1969)]

MIZGIREVA, L. P.
Investigation of the Optical Properties of SiO_2 Films Obtained by Thermal Oxidation of Silicon, in the 7.0–11.0-μ Wavelength Range—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 59 (1968) [25, 117 (1968)]
Influence of Light Interference in a Silicon Dioxide Film on the Reflection Spectrum of an SiO_2–Si System in the 9-μ Region—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 89 (1968) [25, 168 (1968)]

MOROZ, L. P.
Reproduction of Contrast by an Optical System in the Case of Imaging of Two Lines Darker than the Surrounding Field and the Resolution Limit as a Function of Several Factors—L. P. Moroz and Z. O. Kirilyuk. 25, 417 (1969) [25, 748 (1969)]

MOROZOV, V. P.
On the Calculation of Fundamental Frequencies and Vibrational Forms of Mono- and Deutero-Substituted Pyramidal Hydrides—L. V. Belyavskaya, V. N. Shabur, and V. P. Morozov. 25, 31 (1968) [25, 62 (1968)]
A Generalized Equivalence Equation and Its Application to the Calculation of the Zero-Order Frequencies and Anharmonicity Constants of Tetrahedral Hydrides—V. G. Trofimenko and V. P. Morozov. 25, 102 (1968) [25, 190

MOVSESYAN, M. E.
Photoluminescence of Strontium Borate Activated by Samarium—M. E. Movsesyan and V. A. Gevorkyan. 25, 156 (1968) [25, 294 (1968)]

MUMINOV, R. M.
Some Features of the Build-Up Process of X-ray Luminescence in Alkali-Halide Crystal Phosphors—R. M. Muminov and F. N. Zaitov. 25, 335 (1968) [25, 600 (1968)]

NABOIKIN, Yu. V.
Generation of Light in Solutions of Dyes in the 550–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 159 (1968) [25, 297 (1968)]
On the Relaxation of Upper Triplet States in Complex Organic Molecules—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 251 (1968) [25, 457 (1968)]
Q Switching of a Laser Based on the Triplet-Triplet Transitions of Organic Molecules—E. G. Berzing, S. V. Lopina, Yu. V. Naboikin, and Yu. A. Tiunov. 25, 227 (1968) [25, 421 (1968)]
Laser Action in Solutions of Organic Luminophors in the 400–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 406 (1969) [25, 727 (1969)]

NAGAEV, V. B.
On Resonance Nonadiabatic Transitions—V. B. Nagaev and V. I. Osherov. 25, 453 (1968) [25, 810 (1968)]

NAGIBAROVA, I. A.
Dynamical Theory of Energy Migration in a Two-Dimensional Liquid—I. A. Nagibarova and V. R. Rizaev. 25, 336 (1968) [25, 602 (1968)]

NAKHIMOVSKAYA, L. A.
Absorption Spectra at 77°K of n-Paraffin Solutions of Compounds Based on the Biphenyl Structure—G. V. Gobov, R. N. Nurmukhametov, and L. A. Nakhimovskaya. 25, 120 (1968) [25, 227 (1968)]

NASIBOV, I. K.
Quasiline Phosphorescence Spectra of Halogenated Naphthalenes in Paraffins at 55°K. I. Naphthalene, α-fluoronaphthalene, α-fluoronaphthalene-D_7, and α-chloronaphthalene—Kh. I. Mamedov, I. K. Nasibov, and E. N. Niyazova. 25, 386 (1968) [25, 689 (1968)]

NAUMOVA, T. M.
On the Concentration Dependence of Quasiline Phosphorescence Spectra—T. N. Bolotnikova and T. M. Naumova. 25, 253 (1968) [25, 460 (1968)]
Concentration Effect on the Decay Time of the Naphthalene and Phenanthrene Phosphorescence—T. N. Bolotnikova, T. M. Naumova, F. I. Gurov, and V. G. Kazachkov. 25, 291 (1968) [25, 523 (1968)]

NAZARENKO, A. I.
Influence of the Nature of a Para-Substituent on the Frequency of the First Electronic Transition in the Stilbene Molecule—T. N. Bolotnikova, L. Ya. Malkes, A. I. Nazarenko, and V. N. Yakovenko. 25, 348 (1968) [25, 621 (1968)]

NEDZVETSKAYA, I. V.
The Luminescence of KI–AgI—N. I. Ivanova and I. V. Nedzvetskaya. 25, 434 (1969) [25, 776 (1969)]

NEFEDOV, A. V.
A Study of Vibrational Processes in Molecules with Different Symmetries but Similar Masses and Structures—O. V. Fialkovskaya and A. V. Nefedov. 25, 428 (1969) [25, 766 (1969)]

NERSESOVA, G. N.
On the Nature of Anthracene Aggregation in Solution—L. A. Klimova, G. N. Nersesova, and V. I. Glyadkovskii. 25, 153 (1968) [25, 290 (1968)]

NESTERUK, V. F.
Calculation of the Optimum Shape of Light Flux Modulation—Yu. V. Batalov and V. F. Nesteruk. 25, 432 (1969) [25, 773 (1969)]

NIKITIN, E. E.
Cross Sections for Transitions between Fine Structure Components of Atoms of Group II. Collisions between Identical Atoms—A. I. Voronin and E. E. Nikitin. 25, 450 (1968) [25, 803 (1968)]

NIKITINA, V. N.
The Infrared Spectra of Deuteroderivatives of N-Monosubstituted Amides in Dilute Solution—N. A. Sharonova and V. N. Nikitina. 25, 436 (1969) [25, 779 (1969)]

NIKOLAEV, V. M.
On the Intensity of Emission Continuum of the Negative Nitrogen Atom—A. A. Konkov, V. M. Nikolaev, and Yu. A. Plastinin. 25, 380 (1969) [25, 679 (1969)]

NIYAZOVA, E. N.
Quasiline Phosphorescence Spectra of Halogenated Naphthalenes in Paraffins at 55°K. I. Naphthalene, α-fluoronaphthalene, α-fluoronaphthalene-D_7, and α-chloronaphthalene—Kh. I. Mamedov, I. K. Nasibov, and E. N. Niyazova. 25, 386 (1968) [25, 689 (1968)]

NURMUKHAMETOV, R. N.
Electronic Absorption and Luminescence Spectra and Characteristics of the Electronic Structure of Arylpyrazolines—R. N. Nurmukhametov, N. A. Lodygin, and G. I. Grishina. 25, 118 (1968) [25, 222 (1968)]
Absorption Spectra at 77°K of n-Paraffin Solutions of Compounds Based on the Biphenyl Structure—G. V. Gobov, R. N Nurmukhametov, and L. A. Nakhimovskaya. 25, 120 (1968) [25, 227 (1968)]

OCHKUR, V. I.
The Exchange Correction to the Amplitude of Direct Scattering of Electrons from Atoms—V. I. Ochkur. 25, 534 (1968) [25, 964 (1968)]

ODINTSOV, A. I.
Power Amplification of a Laser Pulse Acting on a Substance in the Presence of Induced Mandelstam-Brillouin Backscattering—F. A. Korolyev, Z. A. Baskakova, A. I. Odintsov, and G. Singurel. 25, 72 (1968) [25, 142 (1968)]
On the Stability of a Gaussian Beam in a Nonuniformly Amplifying Medium—V. V. Lebedeva, A. I. Odintsov, and K. Kelov. 25, 236 (1968) [25, 436 (1968)]
Excitation of Stimulated Raman Scattering in a Dispersing Cavity—R. A. Korolev, A. I. Odintsov, and P. A. Tandelov. 25, 241 (1968) [25, 444 (1968)]

OGURTSOVA, L. A.
Generation of Light in Solutions of Dyes in the 550–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 159 (1968) [25, 297 (1968)]
On the Relaxation of Upper Triplet States in Complex Organic Molecules—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 251 (1968) [25, 457 (1968)]
Laser Action in Solutions of Organic Luminophors in the 400–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 406 (1969) [25, 727 (1969)]

OGURTSOVA, N. N.
Coefficient of Continuous Absorption of Hydrogen–Carbon Plasma at 40 000°K and 70 Atm—S. N. Belov, N. N. Ogurtsova, and I. V. Podmoshenskii. 25, 383 (1968) [25, 684 (1968)]

OKHRIMENKO, B. A.
Breakdown of the Bunsen–Rosco Law in the Photochemical Oxidation of Antimony Ions—M. U. Belyi and B. A. Okhrimenko. 25, 139 (1968) [25, 262 (1968)]

ORAEVSKII, A. N.
Resonance Frequency Shift in Two-Photon Transitions—N. D. Voropaev and A. N. Oraevskii. 25, 529 (1968) [25, 955 (1968)]

ORLOV, A. A.
Quantum Mechanical Analysis of the Fine Structure in the Vibration–Rotation Spectrum of Water Vapor. I: Procedures for the Calculation of Positions, Intensities, and Half-Widths of Lines, and of Their Absorption Coefficients—V. E. Zuev, I. I. Ippolitov, Yu. S. Makushkin, A. A. Orlov, and V. V. Fomin. 25, 17 (1968) [25, 36 (1968)]

ORLOVA, I. N.
Probability Values for Spontaneous Emission by Gas and Vapor Molecules Corresponding to Absorption Bands in the 5.0-9.0 Micron Range—Ya. I. Gerlovin and I. N. Orlova 25, 33 (1968) [25, 67 (1968)]

OSELEDCHIK, Yu. S.
Kinetics of Absorption by a Substance of a Broad-Spectrum Radiation—A. I. Burstein and Yu. S. Oseledchik. 25, 75 (1968) [25, 146 (1968)]

OSHEROV, V. I.
On Resonance Nonadiabatic Transitions—V. B. Nagaev and V. I. Osherov. 25, 453 (1968) [25, 810 (1968)]

OSHEROVICH, A. L.
Experimental Determination of Radiation Lifetimes and Transition Probabilities in Ar I—Ya. F. Verolainen and A. L. Osherovich. 25, 258 (1968) [25, 466 (1968)]

OSYKA, V. S.
On the Continuous Spectra of Inert Gases in the Vacuum-Ultraviolet Region Obtained by Means of a Gas-Jet Source—E. T. Verkhovtseva, Ya. M. Fogel, and V. S. Osyka. 25, 238 (1968) [25, 440 (1968)]

PANCHENKO, V. E.
Cross Sections for the Excitation of the K Series of Argon by Electron Collision—G. G. Dolgov-Savelev and V. E. Panchenko. 25, 270 (1968) [25, 484 (1968)]

PANCHENKO, Yu. N.
The Determination of Force Constants by a Matching Method—Yu. N. Panchenko, G. S. Koptev, N. F. Stepanov, and V. M. Tatevskii. 25, 350 (1968) [25, 623 (1968)]

PARAGAMANIK, L. E.
Passage of Light through Cylindrical Light Pipes by Total Internal Reflection—L. E. Paragamanik, T. I. Sokolovskaya, and Yu. I. Tsirlin. 25, 315 (1968) [25, 568 (1968)]

PARKHOMENKO, M. M.
On One Consequence of the Reciprocity Theorem in Holography—Yu. N. Denisyuk and M. M. Parkhomenko. 25, 433 (1969) [25, 775 (1969)]

PARSHIN, P. F.
Calculation of the Diffraction Distribution of Irradiance from an Incoherently Illuminated Disk—P. F. Parshin. 25, 422 (1969) [25, 757 (1969)]

PAVLOV, V. N.
Anisotropy of the g-Tensor of the Er^{3+} Ion in Erbium-Gallium Garnet—A. I. Belyaeva, V. V. Eremenko, V. N. Pavlov, and A. V. Antonov. 25, 55 (1968) [25, 109 1968)]

PAVLOVSKAYA, E. N.
Effect of Plasma Inhomogeneity on Atom Temperature Measurements in a Gas Discharge—E. N. Pavlovskaya and I. V. Podmoshenskii. 25, 273 (1968) [25, 488 (1968)]

PENKIN, N. P.
Oscillator Strengths of the Spectral Lines of EuI—V. A. Komarovskii, N. P. Penkin, and L. N. Shabanova. 25, 81 (1968) [25, 155 (1968)]

Broadening of the Resonance Lines of CaI, SrI, and BaI by Inert Gases—N. P. Penkin and L. N. Shabanova. 25, 446 (1968) [25, 795 (1968)]

PEREL, V. I.

Theory of Lasers with an Ancillary Mirror. I—V. I. Perel and I. V. Rogova. 25, 401 (1969) [25, 716 (1969)]

On the Theory of Lasers with an Additional Mirror. II—V. I. Perel and I. V. Rogova. 25, 520 (1968) [25, 943 (1968)]

PERLOV, D. I.

Neodymium Glass Laser with Plane-Polarized Emission—V. V. Dedushkevich, Yu. P. Ivanov, D. I. Perlov, and V. S. Savodchenko. 25, 331 (1968) [25, 594 (1968)]

PERMOGOROV, V. I.

The Nature of the Long-Wavelength Absorption and Luminescence Bands of Dyes—V. I. Permogorov, L. A. Serdyukova, and M. D. Frank-Kamenetskii. 25, 38 (1968) [25, 77 (1968)]

PIMENOV, Yu. D.

Donor-Acceptor Interactions of Organic Molecules with a CuI Surface—Yu. D. Pimenov. 25, 73 (1968) [25, 144 (1968)]

PISHCHIK, G. F.

Effect of Temperature Deformations on the Image Quality of Optical Components—G. F. Pishchik. 25, 150 (1968) [25, 284 (1968)]

PITERSKAYA, I. V.

Spectral Dependence of the Degree of Rotational Depolarization of the Fluorescence of Complex Molecules in Viscous Solutions—Yu. T. Mazurenko, N. G. Bakhshiev, and I. V. Piterskaya. 25, 46 (1968) [25, 92 (1968)]

PLASTININ, Yu. A.

On the Intensity of Emission Continuum of the Negative Nitrogen Atom—A. A. Konkov, V. M. Nikolaev, and Yu. A. Plastinin. 25, 380 (1969) [25, 679 (1969)]

PODGORNYI, A. P.

Generation of Light in Solutions of Dyes in the 550–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 159 (1968) [25, 297 (1968)]

On the Relaxation of Upper Triplet States in Complex Organic Molecules—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 251 (1968) [25, 457 (1968)]

Laser Action in Solutions of Organic Luminophors in the 400–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 406 (1969) [25, 727 (1969)]

PODMOSHENSKII, I. V.

Effect of Plasma Inhomogeneity on Atom Temperature Measurements in a Gas Discharge—E. N. Pavlovskaya and I. V. Podmoshenskii. 25, 273 (1968) [25, 488 (1968)]

Relaxation Method for Determining the Nature of Continuum in Nonequilibrium Arc Discharges—V. Ya. Aleksandrov, D. B. Gurevich, and I. V. Podmoshenskii. 25, 378 (1969) [25, 674 (1969)]

Coefficient of Continuous Absorption of Hydrogen–Carbon Plasma at 40 000°K and 70 Atm—S. N. Belov, N. N. Ogurtsova, and I. V. Podmoshenskii. 25, 383 (1968) [25, 684 (1968)]

POKASOV, V. V.

The Relationship between the Spatial Coherence of Laser Radiation and the Number of Generated Frequencies—V. V Pokasov and S. S. Khmelyevtsov. 25, 522 (1968) [25, 945 (1968)]

POKROVSKAYA, F. S.

Generation of Light in Solutions of Dyes in the 550–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 159 (1968) [25, 297 (1968)]

On the Relaxation of Upper Triplet States in Complex Organic Molecules—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 251 (1968) [25, 457 (1968)]

Laser Action in Solutions of Organic Luminophors in the 400–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 406 (1969) [25, 727 (1969)]

POGORELYI, P. A.

On the Mechanism of Laser Action in Na–H_2 Mixture—P. A. Pogorelyi and A. S. Tibilov. 25, 301 (1968) [25, 542 (1968)]

POLITOV, N. G.

Absorption of Irradiated LiF Crystals in the ir Region of the Spectrum—Z. G. Akhvlediani and N. G. Politov. 25, 86 (1968) [25, 163 (1968)]

POLYANSKII, V. K.

Specular Reflection from a Mat Surface with Coarse Microtopography—V. K. Polyanskii, L. V. Kovalskii, and T. L. Milovidova. 25, 415 (1969) [25, 744 (1969)]

POPOV, A. I.

Determination of the Line Width of the $3s_2$-$3p_4$ Transition in Ne—A. I. Popov and E. D. Protsenko. 25, 179 (1968) [25, 325 (1968)]

POPOV, M. M.

Resonators for Lasers with Rotated Directions of Principal Curvatures—M. M. Popov. 25, 170 (1968) [25, 314 (1968)]

POPOV, A. I.

Pressure Dependence of the Line Width of the $3s_2$–$3p_4$ Transition of Neon—M. A. Gubin, A. I. Popov, and E. D. Protsenko. 25, 421 (1969) [25, 756 (1969)]

POPOV, K. R.

Polarization of Absorption Bands and Assignment of Electronic Transitions in the Spectra of Substituted Benzenes—K. R. Popov. 25, 471 (1968) [25, 843 (1968)]

POPOV, M. M.

Resonators for Lasers with Unfolded Directions of Principal Curvatures—M. M. Popov. 25, 213 (1968) [25, 394 (1968)]

POPOVA, E. A.

Structural Imperfections in Gypsum Crystals and the Vibrational Spectrum of the Hydrogen Bond—A. I. Stekhanov and E. A. Popova. 25, 205 (1968) [25, 378 (1968)]

POPOVA, V. P.

Primary Electro-Optical Effect in Trenchloride Crystals—A. S. Vasilevskaya, V. P. Popova, I. S. Rezand, and A. S. Sonin. 25, 332 (1968) [25, 596 (1968)]

POTAPOV, E. V.

Investigation of the Optical Properties of SiO_2 Films Obtained by Thermal Oxidation of Silicon, in the 7.0–11.0-μ Wavelength Range—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 59 (1968) [25, 117 (1968)]

Influence of Light Interference in a Silicon Dioxide Film on the Reflection Spectrum of an SiO_2—Si System in the 9-μ Region—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 89 (1968) [25, 168 (1968)]

PREOBRAZHENSKIK, N. G.

The Quenching of Laser Action in an Ion Laser—N. G. Preobrazhenskii and N. Ya. Shaparev. 25, 172 (1968) [25, 317 (1968)]

PRIKHOTKO, A. F.
Characteristics of the Absorption Spectrum of the Fluorobenzene Crystal—G. V. Klimusheva, A. F. Prikhotko, and G. M. Soroka. 25, 197 (1968) [25, 361 (1968)]
Spectral Investigations of Pentacene—A. F. Prikhotko and L. I. Tsikora. 25, 242 (1968) [25, 446 (1968)]

PRIVALOV, V. E.
Study of the Properties of the He–Ne Laser with a Small Discharge Space—V. E. Privalov and V. A. Khodovoi. 25, 173 (1968) [25, 318 (1968)]

PROTSENKO, E. D.
Determination of the Line Width of the $3s_2$–$3p_4$ Transition in Ne—A. I. Popov and E. D. Protsenko. 25, 179 (1968) [25, 325 (1968)]
Effect of Collisions on Certain Characteristics of the He–Ne Laser—S. A. Gonchukov, G. A. Mikhnendo, and E. D. Protsenko. 25, 305 (1968) [25, 550 (1968)]
Pressure Dependence of the Line Width of the $3s_2$–$3p_4$ Transition of Neon—M. A. Gubin, A. I. Popov, and E. D. Protsenko. 25, 421 (1969) [25, 756 (1969)]

PYSHKIN, S. L.
Reflection and Photoluminescence Spectra of Gallium Phosphide Crystals—S. G. Kroitoru, S. L. Pyshkin, S. I. Radautsan, and V. V. Sobolev. 25, 207 (1968) [25, 382 (1968)]

RADAUTSAN, S. I.
Reflection and Photoluminescence Spectra of Gallium Phosphide Crystals—S. G. Kroitoru, S. L. Pyshkin, S. I. Radautsan, and V. V. Sobolev. 25, 207 (1968) [25, 382 (1968)]

RADCHENKO, I. S.
Spectral Dependence of the Coefficients of Attenuation by Colloidal Potassium Particles in the KCl Cyrstal—I. S. Radchenko. 25, 500 (1968) [25, 899 (1968)]

RAGIMOVA, R. A.
Rotational Constants, Dipole Moment, and Structure of the Transform of n-C_3H_8O—L. M. Imanov, A. A. Abdurakhmanov, and R. A. Ragimova. 25, 528 (1968) [25, 954 (1968)]

RAKOV, A. V.
Investigation of the Optical Properties of SiO_2 Films Obtained by Thermal Oxidation of Silicon, in the 7.0–11.0-μ Wavelength Range—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 59 (1968) [25, 117 (1968)]
Influence of Light Interference in a Silicon Dioxide Film on the Reflection Spectrum of an SiO_2–Si System in the 9-μ Region—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 89 (1968) [25, 168 (1968)]

RASHCHEKTAEVA, M. I.
The Effect of Radiation Parameters of a Laser on the Efficiency of Frequency Doubling in a KDP Crystal—M. P. Vanyukov, V. D. Volosov, and M. I. Rashchektaeva. 25, 410 (1969) [25, 735 (1969)]

RAZUMOVA, T. K.
Study of the Population Kinetics of the Metastable ^2E State of Ruby and the Losses in a Q-Switched Laser Resonator—T. K. Razumova and G. M. Rubanova. 25, 295 (1968) [25, 530 (1968)]

RAZUMOVSKII, V. N.
General Theory of Reflection from an Inhomogeneous Layer (E Vector Normal to Plane of Incidence)—V. N. Razumovskii. 25, 507 (1968) [25, 914 (1968)]

REKASHEVA, T. N.
Semiempirical Calculation of the Excitation and Ionization Energies of Isoelectronic Atoms and Ions. II—T. N. Rekasheva and M. G. Veselov. 25, 357 (1969) [25, 633 (1969)]

REVZIN, L. S.
The Nonelementary Nature of the Contour of the Green II Band in the Luminescence Spectrum of the ZnS:Cu, Cl Phosphor—S. V. Degina, L. S. Revzin, and L. M. Shapiro. 25, 191 (1968) [25, 350 (1968)]

REZAND, I. S.
Primary Electro-Optical Effect in Trenchloride Crystals—A. S. Vasilevskaya, V. P. Popova, I. S. Rezand, and A. S. Sonin. 25, 332 (1968) [25, 596 (1968)]

REZNIKOVA, I. I.
Influence of Oxygen on Spectral and Fluorometric Characteristics of Solutions of Phthalimide Derivatives—T. V. Veselova, I. I. Reznikova, A. S. Cherkasov, and V. I. Shirokov. 25, 50 (1968) [25, 98 (1968)]

REZVOV, A. V.
Measurements of the Amplification Coefficient and Geometrical Optics of a Liquid Laser—A. V. Rezvov. 25, 231 (1968) [25, 429 (1968)]

RIZAEV, V. R.
Dynamical Theory of Energy Migration in a Two-Dimensional Liquid—I. A. Nagibarova and V. R. Rizaev. 25, 336 (1968) [25, 602 (1968)]

ROGOVA, I. V.
Competition of Generation of Radiation in Two Transitions with the Same Upper State—I. V. Rogova. 25, 217 (1968) [25, 401 (1968)]
Theory of Lasers with an Ancillary Mirror. I—V. I. Perel and I. V. Rogova. 25, 401 (1969) [25, 716 (1969)]
On the Theory of Lasers with an Additional Mirror. II—V. I. Perel and I. V. Rogova. 25, 520 (1968) [25, 943 (1968)]

ROMANENKO, I. L.
Gudden–Pohl Effect and Sensitizing of Manganese in Zinc Sulfide Phosphors—A. G. Goldman and I. L. Romanenko. 25, 399 (1969) [25, 713 (1969)]

ROSANOV, N. N.
Phase Relations in the Case of the Capture of Modes with Different Q Factors—N. N. Rosanov. 25, 245 (1968) [25, 449 (1968)]

RUBANOVA, G. M.
Study of the Population Kinetics of the Metastable ^2E State of Ruby and the Losses in a Q-Switched Laser Resonator—T. K. Razumova and G. M. Rubanova. 25, 295 (1968) [25, 530 (1968)]

RUBINOV, A. N.
Effect of Stationary Waves on Spectral and Energy Characteristics of a Laser with Plane Mirrors—A. N. Rubinov and S. A. Mikhnov. 25, 502 (1968) [25, 903 (1968)]

RUMYANTSEV, B. M.
Effect of an Electric Field on the Delayed Fluorescence of Anthracene—B. M. Rumyantsev and E. L. Frankevich. 25, 518 (1968) [25, 938 (1968)]

RYBAKOV, B. V.
Polarization Properties of Multilayer Dielectric Mirrors—B. V. Rybakov, S. S. Skulachenko, R. F. Chumichev, and I. I. Yudin. 25, 317 (1968) [25, 572 (1968)]

SAITKULOV, I. G.
Cumulative Luminescence in CaF–Gd^{3+}, Yb^{3+}—D. D. Livanova, I. G. Saitkulov, and A. L. Stolov. 25, 340 (1968) [25, 609 (1968)]

SAMETIS, O. S.
Collisions between Excited Mercury Atoms and Unexcited Thallium Atoms—E. K. Kraulyina, A. E. Lezdin, and O. S. Sametis. 25, 523 (1968) [25, 947 (1968)]

SAMSON, A. M.
On the Theory of Laser Resonators—A. M. Samson. 25, 209 (1968) [25, 386 (1968)]

SAPOZHNIKOV, M. N.
The Relationship between Quasi-Line Spectra and the Process of Crystallization—N. S. Dokunikhin, V. A. Kizel, M. N. Sapozhnikov, and S. L. Solodar. 25, 42 (1968) [25, 85 (1968)]

SATTAROV, D. K.
Photooptical Characteristics of a Pile of Fiber-Optic Com-

SAVCHENKO, O. Ya.
Magnetooptics of an Electron Gas—O. Ya. Savchenko. 25, 370 (1969) [25, 658 (1969)]

SAVIN, F. A.
The Vibrational Structure of the Electronic Spectra of Some Polyatomic Molecules—F. A. Savin. 25, 467 (1968) [25, 836 (1968)]

SAVODCHENKO, V. S.
Neodymium Glass Laser with Plane-Polarized Emission—V. V. Dedushkevich, Yu. P. Ivanov, D. I. Perlov, and V. S. Savodchenko. 25, 331 (1968) [25, 594 (1968)]

SEMENOV, R. I.
Determination of g Factors of Excited Levels of Neutral and Singly Ionized Rubidium—G. P. Anisimova, V. D. Galkin, and R. I. Semenov. 25, 176 (1968) [25, 322 (1968)]

SERDYUKOVA, L. A.
The Nature of the Long-Wavelength Absorption and Luminescence Bands of Dyes—V. I. Permogorov, L. A. Serdyukova, and M. D. Frank-Kamenetskii. 25, 38 (1968) [25, 77 (1968)]

SHABANOVA, L. N.
Oscillator Strengths of the Spectral Lines of EuI—V. A. Komarovskii, N. P. Penkin, and L. N. Shabanova. 25, 81 (1968) [25, 155 (1968)]

Broadening of the Resonance Lines of CaI, SrI, and BaI by Inert Gases—N. P. Penkin and L. N. Shabanova. 25, 446 (1968) [25, 795 (1968)]

SHABUR, V. N.
On the Calculation of Fundamental Frequencies and Vibrational Forms of Mono- and Deutero-Substituted Pyramidal Hydrides—L. V. Belyavskaya, V. N. Shabur, and V. P. Morozov. 25, 31 (1968) [25, 62 (1968)]

SHAPAREV, N. Ya.
The Quenching of Laser Action in an Ion Laser—N. G. Preobrazhenskii and N. Ya. Shaparev. 25, 172 (1968) [25, 317 (1968)]

SHAPIRO, L. M.
The Nonelementary Nature of the Contour of the Green II Band in the Luminescence Spectrum of the ZnS:Cu, Cl Phosphor—S. V. Degina, L. S. Revzin, and L. M. Shapiro. 25, 191 (1968) [25, 350 (1968)]

SHARONOV, Yu. A.
Automatic Spectropolarimeter for Measuring the Faraday Effect in the Visible and Ultraviolet Regions of the Spectrum—Yu. A. Sharonov. 25, 514 (1968) [25, 930 (1968)]

SHARONOVA, N. A.
The Infrared Spectra of Deuteroderivatives of N-Monosubstituted Amides in Dilute Solution—N. A. Sharonova and V. N. Nikitina. 25, 436 (1969) [25, 779 (1969)]

SHESTOV, A. N.
Induced Mandelstam-Brillouin Scattering (IMBS) in Glass in the Case of Selffocusing of the Monopulse Laser Beam—L. D. Khazov and A. N. Shestov. 25, 248 (1968) [25, 453 (1968)]

SHIROKOV, V. I.
Influence of Oxygen on Spectral and Fluorometric Characteristics of Solutions of Phthalimide Derivatives—T. V. Veselova, I. I. Reznikova, A. S. Cherkasov, and V. I. Shirokov. 25, 50 (1968) [25, 98 (1968)]

Evidence of the Radiating-Centers Inhomogeneity of Crystalline Anthracene in Fluorometric Phase Spectra—L. A. Limareva, A. S. Cherkasov, and V. I. Shirokov. 25, 132 (1968) [25, 249 (1968)]

SHIGORIN, D. I.
The Effect of Intramolecular Interactions on the C≡C Absorption Band Intensity in the Infrared Spectra of Some Acetylene Derivatives with Conjugated Bonds—E. A. Gastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova. 25, 429 (1969) [25, 769 (1969)]

SHMANKO, I. I.
Effect of Hydrogen Bonding on the Vibrations of the NH_2 Group. I: Frequencies of Valence Vibrations—E. L. Zhukova and I. I. Shmanko. 25, 279 (1968) [25, 500 (1968)]

SHORYGIN, P. P.
Variation of Raman Line Intensities with the Frequency of the Exciting Light—P. P. Shorygin and T. M. Ivanova. 25, 107 (1968) [25, 200 (1968)]

SHOSTKO, S. N.
Characteristics of the Scattering of Coherent Optical Waves by a Curved Rough Surface—S. N. Shostko and G. A. Travin. 25, 78 (1968) [25, 151 (1968)]

SHUKHTIN, A. M.
Investigation of Generation of Radiation in the Na–H_2 Mixture—A. S. Tibilov and A. M. Shukhtin. 25, 221 (1968) [25, 409 (1968)]

SHUVALOVA, L. G.
Spectroscopic Investigation of an Ultrahigh-Frequency Discharge in Inert Gases—I. N. Kalvina, S. M. Leonteva, and L. G. Shuvalova. 25, 93 (1968) [25, 173 (1968)]

SIDOROV, N. K.
A Study of the Intensities and Polarizations of Second-Order Lines in Raman Spectra of Liquids—N. K. Sidorov, L. S. Stalmakhova, and V. A. Eskin. 25, 104 (1968) [25, 194 (1968)]

SIKHANOV, V. I.
On One Property of Three-Dimensional Holograms Taken in Immediate Proximity to the Object—Yu. N. Denisyuk and V. I. Sikhanov. 25, 166 (1968) [25, 308 (1968)]

SIMONENKO, A. F.
Measurement of the Emissivity of Nitrogen, Oxygen, and Air in the Vacuum Ultraviolet Region of the Spectrum—S. G. Grenishin, A. F. Simonenko, and G. P. Startsev. 25, 461 (1968) [25, 825 (1968)]

SINGUREL, G.
Power Amplification of a Laser Pulse Acting on a Substance in the Presence of Induced Mandelstam-Brillouin Backscattering—F. A. Korolyev, Z. A. Baskakova, A. I. Odintsov, and G. Singurel. 25, 72 (1968) [25, 142 (1968)]

SIVKOV, A. S.
Attenuation of Light by Absorbing Particles with a Small Real Part of the Refractive Index—A. N. Latyshev, A. S. Sivkov, and N. V. Teselkina. 25, 313 (1968) [25, 565 (1968)]

SKUBENICH, V. V.
Excitation of Molecular Oxygen by Low-Energy Electrons—V. V. Skubenich. 25, 90 (1968) [25, 169 (1968)]

SKULACHENKO, S. S.
Polarization Properties of Multilayer Dielectric Mirrors—B. V. Rybakov, S. S. Skulachenko, R. F. Chumichev, and I. I. Yudin. 25, 317 (1968) [25, 572 (1968)]

SMIRNOV, A. G.
Production of High-Quality Holograms of Three-Dimensional Diffuse Objects with the Use of Single-Mode Ruby Lasers—D. I. Staselko, A. G. Smirnov, and Yu. N. Denisyuk. 25, 505 (1968) [25, 910 (1968)]

SOBOLEV, V. V.
Reflection and Photoluminescence Spectra of Gallium Phosphide Crystals—S. G. Kroitoru, S. L. Pyshkin, S. I. Radautsan, and V. V. Sobolev. 25, 207 (1968) [25, 382 (1968)]

SOKOLOVSKAYA, A. I.
Amplification of Stimulated Raman Scattering by Dyes—L. D. Derkacheva and A. I. Sokolovskaya. 25, 244 (1968) [25, 447 (1968)]

SOKOLOVSKAYA, T. I.
Passage of Light through Cylindrical Light Pipes by Total Internal Reflection—L. E. Paragamanik, T. I. Sokolovskaya, and Yu. I. Tsirlin. 25, 315 (1968) [25, 568 (1968)]

SOLODAR, S. L.
The Relationship between Quasi-Line Spectra and the Process of Crystallization—N. S. Dokunikhin, V. A. Kizel, M. N. Sapozhnikov, and S. L. Solodar. 25, 42 (1968) [25, 85 (1968)]

SOLODOVNIKOVA, E. P.
Dependence of the Electroluminescence Intensity of CsI-Tl on Exciting Voltage Parameters—A. N. Georgobiani and E. P. Solodovnikova. 25, 259 (1968) [25, 468 (1968)]

SONIN, A. S.
Primary Electro-Optical Effect in Trenchloride Crystals—A. S. Vasilevskaya, V. P. Popova, I. S. Rezand, and A. S. Sonin. 25, 332 (1968) [25, 596 (1968)]

SOROKA, G. M.
Characteristics of the Absorption Spectrum of the Fluorobenzene Crystal—G. V. Klimusheva, A. F. Prikhotko, and G. M. Soroka. 25, 197 (1968) [25, 361 (1968)]

STALMAKHOVA, L. S.
A Study of the Intensities and Polarizations of Second-Order Lines in Raman Spectra of Liquids—N. K. Sidorov, L. S. Stalmakhova, and V. A. Eskin. 25, 104 (1968) [25, 194 (1968)]

STANEVICH, A. E.
Long-Wavelength Infrared Absorption Spectra of Nucleoside Crystals—V. Ya. Maleev and A. E. Stanevich. 25, 36 (1968) [25, 72 (1968)]

STAROSTIN, N. V.
Structure of the Lowest Stark Sublevels of $4f^1$ and $5d^1$ Configurations of the Tetragonal Cerium Center in MeF_2-Type Crystals—N. V. Starostin. 25, 83 (1968) [25, 159 1968)]
Strong-Field Approximation in the Theory of $4f^{n-1}$ 5d Configurations of Lanthanides in Crystals of the Fluorite Type—N. V. Starostin. 25, 165 (1968) [25, 306 (1968)]
Stark Structure of the $5d^1$ Configuration of the Cerium C_{3v}-Center in Crystals of the MeF_2 Type—N. V. Starostin and V. K. Zakharov. 25, 431 (1969) [25, 771 (1969)]
Investigation of Magnetooptical Rotation in f–d-Transitions in CaF_2–Dy^{2+} Crystals—L. A. Alekseeva and N. V. Starostin. 25, 532 (1968) [25, 960 (1968)]

STARTSEV, G. P.
Measurement of the Emissivity of Nitrogen, Oxygen, and Air in the Vacuum Ultraviolet Region of the Spectrum—S. G. Grenishin, A. F. Simonenko, and G. P. Startsev. 25, 461 (1968) [25, 825 (1968)]

STASELKO, D. I.
Production of High-Quality Holograms of Three-Dimensional Diffuse Objects with the Use of Single-Mode Ruby Lasers—D. I. Staselko, A. G. Smirnov, and Yu. N. Denisyuk. 25, 505 (1968) [25, 910 (1968)]

STEKHANOV, A. I.
Structural Imperfections in Gypsum Crystals and the Vibrational Spectrum of the Hydrogen Bond—A. I. Stekhanov and E. A. Popova. 25, 205 (1968) [25, 378 (1968)]

STEPANOV, N. F.
The Determination of Force Constants by a Matching Method—Yu. N. Panchenko, G. S. Koptev, N. F. Stepanov, and V. M. Tatevskii. 25, 350 (1968) [25, 623 (1968)]

STOLOV, A. L.
Cumulative Luminescence in CaF–Gd^{3+}, Yb^{3+}—D. D. Livanova, I. G. Saitkulov, and A. L. Stolov. 25, 340 (1968) [25, 609 (1968)]

SVERDLOV, L. M.
Theoretical and Experimental Investigation of the Absolute Intensities of Bands in the Infrared Spectra of Polyatomic Molecules I: Acetone—V. I. Vakhlueva, A. G. Finkel, L. M. Sverdlov, and L. A. Zaitseva. 25, 160 (1968) [25, 299 (1968)]
Theoretical and Experimental Investigation of Absolute Band Intensities in the Infrared Spectra of Polyatomic Molecules. II. Acetaldehyde—V. I. Vakhlyueva, A. G. Finkel, L. M. Sverdlov, and A. I. Andreeva. 25, 234 (1968) [25, 433 (1968)]

TALANKINA, G. I.
On the Possibility of Optical Pumping of Gases by Their Own Radiation—P. A. Bokhan and G. I. Talankina. 25, 298 (1968) [25, 536 (1968)]

TAMBOVSTEV, B. Z.
Approximate Solution of the Balance Equation of Excited Atoms Corrected for Diffusion by the Extreme Functional Method—B. Z. Tambovtsev. 25, 448 (1968) [25, 799 (1968)]

TANDELOV, P. A.
Excitation of Stimulated Raman Scattering in a Dispersing Cavity—R. A. Korolev, A. I. Odintsov, and P. A. Tandelov. 25, 241 (1968) [25, 444 (1968)]

TATEVSKII, V. M.
The Determination of Force Constants by a Matching Method—Yu. N. Panchenko, G. S. Koptev, N. F. Stepanov, and V. M. Tatevskii. 25, 350 (1968) [25, 623 (1968)]

TEPLOVA, S.
Depolarizing Collisions of Excited Thallium Atoms with Inert Gases—S. Teplova, M. Chaika, and V. Cherenkovskii. 25, 189 (1968) [25, 346 (1968)]

TERSKOI, Ya. A.
Transfer of Electronic Excitation Energy in Rigid Solutions of Organic Luminors—Ya. A. Terskoi, V. G. Brudz, and O. N. Korolkova. 25, 287 (1968) [25, 516 (1968)]
The Transfer of Electronic Excitation Energy in Solid Solutions by Means of Virtual Excitons—Ya. A. Terskoi and V. G. Brudz. 25, 489 (1968) [25, 877 (1968)]

TESELKINA, N. V.
Attenuation of Light by Absorbing Particles with a Small Real Part of the Refractive Index—A. N. Latyshev, A. S. Sivkov, and N. V. Teselkina. 25, 313 (1968) [25, 565 (1968)]

TIBILOV, A. S.
Investigation of Generation of Radiation in the Na–H_2 Mixture—A. S. Tibilov and A. M. Shukhtin. 25, 221 (1968) [25, 409 (1968)]
On the Mechanism of Laser Action in Na–H_2 Mixture—P. A. Pogorelyi and A. S. Tibilov. 25, 301 (1968) [25, 542 (1968)]

TIUNOV, Yu. A.
Q Switching of a Laser Based on the Triplet-Triplet Transitions of Organic Molecules—E. G. Berzing, S. V. Lopina, Yu. V. Naboikin, and Yu. A. Tiunov. 25, 227 (1968) [25, 421 (1968)]

TISHCHENKO, M. A.
Fluorescence of Benzene Solutions of Rare Earth Complexes with Tenoyltrifluoro-acetone and Rhodamine-C—L. I. Kononenko and M. A. Tishchenko. 25, 392 (1969) [25, 701 (1969)]

TKACHYEVA, V. I.
Transition from the Quadratic to the Linear Stark Effect for Spectral Lines of the Lithium Atom. Calculation of the Splitting of Energy Levels—M. A. Elyashevich and V. I. Tkachyeva. 25, 5, (1968) [25, 12 (1968)]

TOLCHINSKAYA, T. B.
Influence of the Mirror Motion in a Three-Mirror Resonator on the Generation Power—V. G. Domelunksen and T. B. Tolchinskaya. 25, 91 (1968) [25, 170 (1968)]

TOLMACHEV, Yu. A.
Collisions of the Second Kind in the Afterglow of the Positive Column of a Mercury-Krypton Discharge—O. P. Bochkova and Yu. A. Tolmachev. 25, 187 (1968) [25, 342 (1968)]
Rate of Quenching of Metastable Helium Atoms in the Positive Column of a Gas Discharge—Yu. A. Tolmachev. 25, 261 (1968) [25, 470 (1968)]
Excitation of Higher States of Helium in the Positive Column of a Discharge Plasma—Yu. A. Tolmachev. 25, 262 (1968) [25, 473 (1968)]
Effect of Stepwise Ionization on the Population of Highly Excited States of Helium—Yu. A. Tolmachev. 25, 541 (1968) [25, 974 (1968)]

TRAVIN, G. A.
Characteristics of the Scattering of Coherent Optical Waves by a Curved Rough Surface—S. N. Shostko and G. A. Travin. 25, 78 (1968) [25, 151 (1968)]

TROFIMENKO, V. G.
A Generalized Equivalence Equation and Its Application to the Calculation of the Zero-Order Frequencies and Anharmonicity Constants of Tetrahedral Hydrides—V. G. Trofimenko and V. P. Morozov. 25, 102 (1968) [25, 190

TROFIMOVA, L. S.
Photooptical Characteristics of a Pile of Fiber-Optic Com-

TROITSKII, Yu. V.
Method of Introducing Small Calibrated Damping in an Optical Resonator—Yu. V. Troitskii. 25, 84 (1968) [25, 160 (1968)]
Thin Scattering Film in the Field of a Standing Wave of Optical Frequencies and Its Use in Selecting Modes of an Optical Resonator—Yu. V. Troitskii and N. D. Goldina. 25, 255 (1968) [25, 462 (1968)]
Optical Resonator with a Thin Absorbing Film as a Mode Selector—Yu. V. Troitskii. 25, 309 (1968) [25, 557 (1968)]

TROPININ, V. N.
The Influence of Scattering Center Motion on Polarized Luminescence—V. N. Tropinin. 25, 135 (1968) [25, 254 (1968)]

TSENO, N. V.
A Method for Automatic Correction of Aberrations in Composite Optical Systems—D. S. Volosov and N. V. Tseno. 25, 319 (1968) [25, 575 (1968)]

TSIKORA, L. I.
Spectral Investigations of Pentacene—A. F. Prikhotko and L. I. Tsikora. 25, 242 (1968) [25, 446 (1968)]

TSIRLIN, Yu. I.
Passage of Light through Cylindrical Light Pipes by Total Internal Reflection—L. E. Paragamanik, T. I. Sokolovskaya, and Yu. I. Tsirlin. 25, 315 (1968) [25, 568 (1968)]

TURUKHANO, B. G.
Production of Holograms by Means of a Special Prism in the Case when a Laser with Limited Coherence Length is Used—B. G. Turukhano and N. Turukhano. 25, 167 (1968) [25, 309 (1968)]

TURUKHANO, N.
Production of Holograms by Means of a Special Prism in the Case when a Laser with Limited Coherence Length is Used—B. G. Turukhano and N. Turukhano. 25, 167 (1968) [25, 309 (1968)]

TYUN'KINA, N. I.
The Vibronic Spectra of Crystals of Certain p-Dialkylbenzenes—G. V. Klimusheva, B. M. Lerman, N. I. Tyun'kina, and R. V. Yaremko. 25, 129 (1968) [25, 243 (1968)]

VAKHLUEVA, V. I.
Theoretical and Experimental Investigation of the Absolute Intensities of Bands in the Infrared Spectra of Polyatomic Molecules I: Acetone—V. I. Vakhlueva, A. G. Finkel, L. M. Sverdlov, and L. A. Zaitseva. 25, 160 (1968) [25, 299 (1968)]

VAKHLYUEVA, V. I.
Theoretical and Experimental Investigation of Absolute Band Intensities in the Infrared Spectra of Polyatomic Molecules. II. Acetaldehyde—V. I. Vakhlyueva, A. G. Finkel, L. M. Sverdlov, and A. I. Andreeva. 25, 234 (1968) [25, 433 (1968)]

VAGNER, S. D.
On Contracted High Frequency Neon Discharge—S. D. Vagner, Yu. M. Kagan and G. Yu. Krustalyev. 25, 88 (1968) [25, 166 (1968)]

VANYUKOV, M. P.
The Effect of Radiation Parameters of a Laser on the Efficiency of Frequency Doubling in a KDP Crystal—M. P. Vanyukov, V. D. Volosov, and M. I. Rashchektaeva. 25, 410 (1969) [25, 735 (1969)]

VARSHALOVICH, D. A.
Selection Rules for Multiquantum Transitions—D. A. Varshalovich. 25, 85 (1968) [25, 162 (1968)]

VASILEVSKAYA, A. S.
New Method of Plotting Potential Curves for Diatomic Molecules Using Spectroscopic Data. I: Potential Curves for Diatomic Molecules in the Zero Order Approximation
Primary Electro-Optical Effect in Trenchloride Crystals—A. S. Vasilevskaya, V. P. Popova, I. S. Rezand, and A. S. Sonin. 25, 332 (1968) [25, 596 (1968)]

VASILEVSKII, A. S.
of a Generalized WKB-Method—N. I. Zhirnov and A. S. Vasilevskii. 25, 13 (1968) [25, 28 (1968)]

VDOVIN, Yu. A.
On Atomic Collisions in Gas Lasers—Yu. A. Vdovin. 25, 249 (1968) [25, 454 (1968)]

VERKHOVTSEVA, E. T.
On the Continuous Spectra of Inert Gases in the Vacuum-Ultraviolet Region Obtained by Means of a Gas-Jet Source—E. T. Verkhovtseva, Ya. M. Fogel, and V. S. Osyka. 25, 238 (1968) [25, 440 (1968)]

VEROLAINEN, Ya. F.
Experimental Determination of Radiation Lifetimes and Transition Probabilities in Ar I—Ya. F. Verolainen and A. L. Osherovich. 25, 258 (1968) [25, 466 (1968)]

VESELOV, M. G.
Semiempirical Calculation of the Excitation and Ionization Energies of Isoelectronic Atoms and Ions. II—T. N. Rekasheva and M. G. Veselov. 25, 357 (1969) [25, 633 (1969)]

VESELOVA, T. V.
Influence of Oxygen on Spectral and Fluorometric Characteristics of Solutions of Phthalimide Derivatives—T. V. Veselova, I. I. Reznikova, A. S. Cherkasov, and V. I. Shirokov. 25, 50 (1968) [25, 98 (1968)]

VETCHINKIN, S. I.
Application of Coulomb Green's Function to the Calculation of the Interaction of a Hydrogen Atom with the Field of a Light Wave in Second-Order Perturbation Theory—S. I. Vetchinkin and S. V. Khristenko. 25, 365 (1969) [25, 650 (1969)]
Structure of the Perturbation Series for the Corrections to Dipole Transition Probabilities—S. I. Vetchinkin and S. V. Khristenko. 25, 444 (1968) [25, 791 (1968)]

VIKTOROVA, E. N.
Phosphorescence and Fluorescence of Two-Component and Multicomponent Solutions of Biphenyl Derivatives—A. V. Aristov and E. N. Viktorova. 25, 283 (1968) [25, 509 (1968)]

VLOKH, O. G.
Experimental Investigation of the Discrete Deviation of Optical Beams Based on the Electrooptical Effect in ADP-Type Crystals—O. G. Vlokh, L. F. Lutsiv-Shumskii, and S. P. Kinakh. 25, 228 (1968) [25, 424 (1968)]

VOLOSOV, D. S.
A Method for Automatic Correction of Aberrations in Composite Optical Systems—D. S. Volosov and N. V. Tseno. 25, 319 (1968) [25, 575 (1968)]

VOLOSOV, V. D.
The Effect of Radiation Parameters of a Laser on the Efficiency of Frequency Doubling in a KDP Crystal—M. P. Vanyukov, V. D. Volosov, and M. I. Rashchektaeva. 25, 410 (1969) [25, 735 (1969)]

VOMPE, A. F.
Stimulated Luminescence of Dyes in the 720–920 nm Region—L. D. Derkacheva, A. I. Krymova, A. F. Vompe, and I. I. Levkoev. 25, 404 (1969) [25, 723 (1969)]

VORONIN, A. I.
Cross Sections for Transitions between Fine Structure Components of Atoms of Group II. Collisions between Identical Atoms—A. I. Voronin and E. E. Nikitin. 25, 450 (1968) [25, 803 (1968)]

VOROPAEV, N. D.
Resonance Frequency Shift in Two-Photon Transitions—N. D. Voropaev and A. N. Oraevskii. 25, 529 (1968) [25, 955 (1968)]

VUKS, M. F.
Treatment of Field Fluctuations in the Theory of Light Scattering in Liquids—M. F. Vuks. 25, 479 (1968) [25, 857 (1968)]

YAKOVENKO, V. N.
Influence of the Nature of a Para-Substituent on the Frequency of the First Electronic Transition in the Stilbene Molecule—T. N. Bolotnikova, L. Ya. Malkes, A. I. Nazarenko, and V. N. Yakovenko. 25, 348 (1968) [25, 621 (1968)]

YAREMKO, A. M.
Fermi Resonance in Molecular Crystals—M. P. Lisitsa and A. M. Yaremko. 25, 482 (1968) [25, 864 (1968)]

YAREMKO, R. V.
The Vibronic Spectra of Crystals of Certain p-Dialkylbenzenes—G. V. Klimusheva, B. M. Lerman, N. I. Tyun'kina, and R. V. Yaremko. 25, 129 (1968) [25, 243 (1968)]

YUDIN, D. M.
Absorption Spectrum of Tetravalent Chromium in Glasses—S. P. Lunkin, D. G. Galimov, and D. M. Yudin. 25, 323 (1968) [25, 583 (1968)]

YUDIN, I. I.
Polarization Properties of Multilayer Dielectric Mirrors—B. V. Rybakov, S. S. Skulachenko, R. F. Chumichev, and I. I. Yudin. 25, 317 (1968) [25, 572 (1968)]

YUKOV, E. A.
The Broadening of the Spectral Lines of Non-Hydrogen-Like Ions—V. A. Alekseev and E. A. Yukov. 25, 363 (1969) [25, 645 (1969)]

YUREV, M. S.
Variational Calculation of the Probabilities of Singlet–Triplet Transitions in the Helium Atom—M. S. Yurev. 25, 157 (1968) [25, 295 (1968)]

YURKOV, G. N.
Multiplet States of Diatomic Molecules with Spin–Orbit Coupling Intermediate between Hund's Cases a and b—G. N. Yurkov and G. A. Khachkuruzov. 25, 459 (1968) [25, 820 (1968)]

YUTSIS, A. P.
Application of the Extended Method of Calculation to the Theoretical Determination of the Fine Structure of Atom and Ion Terms in the $Is^2 2s^2 2p^N$ Configuration—V. A. Kaminskas and A. P. Yutsis. 25, 423 (1969) [25, 759 (1969)]

ZABIYAKIN, Yu. E.
Quantitative Study of the Effect of Temperature on the Intensity of Infrared Absorption Bands in Liquids—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 29 (1968) [25, 58 (1968)]
Temperature Dependence of the Absorption and Dispersion of Carbon Tetrachloride in the Range 740–820 cm^{-1}—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 525 (1968) [25, 949 (1968)]
Absorption and Dispersion of Certain Organic Liquids in the Region of IR Absorption Bands—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 526 (1968) [25, 951 (1968)]

ZAITOV, F. N.
Some Features of the Build-Up Process of X-ray Luminescence in Alkali-Halide Crystal Phosphors—R. M. Muminov and F. N. Zaitov. 25, 335 (1968) [25, 600 (1968)]

ZAITSEVA, L. A.
Theoretical and Experimental Investigation of the Absolute Intensities of Bands in the Infrared Spectra of Polyatomic Molecules I: Acetone—V. I. Vakhlueva, A. G. Finkel, L. M. Sverdlov, and L. A. Zaitseva. 25, 160 (1968) [25, 299 (1968)]

ZAKHAROV, V. K.
Stark Structure of the $5d^1$ Configuration of the Cerium C_{3v}-Center in Crystals of the MeF_2 Type—N. V. Starostin and V. K. Zakharov. 25, 431 (1969) [25, 771 (1969)]

ZAVT, G. S.
Optical Electronic Transitions between Local and Zone States in Impurity Centers—N. N. Kristofel and G. S. Zavt. 25, 395 (1969) [25, 705 (1969)]

ZELIKIN, Ya. M.
Luminescence of Zinc and Magnesium Orthovanadates Imbedded in Certain Oxides and Salts—S. L. Berdnikov and Ya. M. Zelikin. 25, 329 (1968) [25, 591 (1968)]

ZHIRNOV, N. I.
New Method of Plotting Potential Curves for Diatomic Molecules Using Spectroscopic Data. I: Potential Curves for Diatomic Molecules in the Zero Order Approximation of a Generalized WKB-Method—N. I. Zhirnov and A. S. Vasilevskii. 25, 13 (1968) [25, 28 (1968)]

ZHUKOVA, E. L.
Effect of Hydrogen Bonding on the Vibrations of the NH_2 Group. I: Frequencies of Valence Vibrations—E. L. Zhukova and I. I. Shmanko. 25, 279 (1968) [25, 500 (1968)]

ZHUKOVA, K. V.
The Effect of Intramolecular Interactions on the C≡C Absorption Band Intensity in the Infrared Spectra of Some Acetylene Derivatives with Conjugated Bonds—E. A. Gastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova. 25, 429 (1969) [25, 769 (1969)]

ZHURAVLYEVA, T. S.
Determination of T–T* Absorption Spectra by Means of Two-Quantum Photosensitized Reactions—T. S. Zhuravlyeva. 25, 389 (1969) [25, 696 (1969)]

ZILITIS, V. A.
Oscillator Strengths of the Isoelectronic Series of Zinc—V. A. Zilitis. 25, 361 (1969) [25, 641 (1969)]

ZNAMENSKII, V. B.
An Investigation of the Concentration Dependence of Metastable Helium and Neon Atoms on the Parameters of a Hollow Cathode Discharge—V. B. Znamenskii. 25, 7 (1968) [25, 17 (1968)]

ZUBOV, V. A.
Optical Method for Eliminating the Apparatus Function of a Spectral Instrument—V. A. Zubov. 25, 412 (1969) [25, 738 (1969)]

ZUEV, V. E.
Quantum Mechanical Analysis of the Fine Structure in the Vibration–Rotation Spectrum of Water Vapor. I: Procedures for the Calculation of Positions, Intensities, and Half-Widths of Lines, and of Their Absorption Coefficients—V. E. Zuev, I. I. Ippolitov, Yu. S. Makushkin, A. A. Orlov, and V. V. Fomin. 25, 17 (1968) [25, 36 (1968)]

TABLE OF CONTENTS

VOLUME XXV: JULY-DECEMBER

[Numbers in brackets refer to Russian original.]

No. 1—July

Oscillator Strengths of the Resonance Lines of GeI, AsII, SnI, SbII, PbI, and BiII—P. F. Gruzdev. 25, 1 (1968) [25, 3 (1968)]

Transition from the Quadratic to the Linear Stark Effect for Spectral Lines of the Lithium Atom. Calculation of the Splitting of Energy Levels—M. A. Elyashevich and V. I. Tkachyeva. 25, 5, (1968) [25, 12 (1968)]

An Investigation of the Concentration Dependence of Metastable Helium and Neon Atoms on the Parameters of a Hollow Cathode Discharge—V. B. Znamenskii. 25, 7 (1968) [25, 17 (1968)]

Determination of the Spectral Absorptivity of a Pulsed Discharge Plasma from the Spectral Density of Its Radiance—F. A. Charnaya. 25, 11 (1968) [25, 24 (1968)]

New Method of Plotting Potential Curves for Diatomic Molecules Using Spectroscopic Data. I: Potential Curves for Diatomic Molecules in the Zero Order Approximation of a Generalized WKB-Method—N. I. Zhirnov and A. S. Vasilevskii. 25, 13 (1968) [25, 28 (1968)]

Quantum Mechanical Analysis of the Fine Structure in the Vibration—Rotation Spectrum of Water Vapor. I: Procedures for the Calculation of Positions, Intensities, and Half-Widths of Lines, and of Their Absorption Coefficients—V. E. Zuev, I. I. Ippolitov, Yu. S. Makushkin, A. A. Orlov, and V. V. Fomin. 25, 17 (1968) [25, 36 (1968)]

Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules. II: Diatomic Molecules (Infrared Spectra of HCl)—O. P. Girin, N. G. Bakhshiev, and O. I. Maksimova. 25, 22 (1968) [25, 45 (1968)]

The Construction of a Parametric Theory of Intensities in the Infrared Spectra of Polyatomic Molecules—L. A. Gribov. 25, 26 (1968) [25, 53 (1968)]

Quantitative Study of the Effect of Temperature on the Intensity of Infrared Absorption Bands in Liquids—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 29 (1968) [25, 58 (1968)]

On the Calculation of Fundamental Frequencies and Vibrational Forms of Mono- and Deutero-Substituted Pyramidal Hydrides—L. V. Belyavskaya, V. N. Shabur, and V. P. Morozov. 25, 31 (1968) [25, 62 (1968)]

Probability Values for Spontaneous Emission by Gas and Vapor Molecules Corresponding to Absorption Bands in the 5.0-9.0 Micron Range—Ya. I. Gerlovin and I. N. Orlova 25, 33 (1968) [25, 67 (1968)]

Long-Wavelength Infrared Absorption Spectra of Nucleoside Crystals—V. Ya. Maleev and A. E. Stanevich. 25, 36 (1968) [25, 72 (1968)]

The Nature of the Long-Wavelength Absorption and Luminescence Bands of Dyes—V. I. Permogorov, L. A. Serdyukova, and M. D. Frank-Kamenetskii. 25, 38 (1968) [25, 77 (1968)]

The Relationship between Quasi-Line Spectra and the Process of Crystallization—N. S. Dokunikhin, V. A. Kizel, M. N. Sapozhnikov, and S. L. Solodar. 25, 42 (1968) [25, 85 (1968)]

Spectral Dependence of the Degree of Rotational Depolarization of the Fluorescence of Complex Molecules in Viscous Solutions—Yu. T. Mazurenko, N. G. Bakhshiev, and I. V. Piterskaya. 25, 46 (1968) [25, 92 (1968)]

Influence of Oxygen on Spectral and Fluorometric Characteristics of Solutions of Phthalimide Derivatives—T. V. Veselova, I. I. Reznikova, A. S. Cherkasov, and V. I. Shirokov. 25, 50 (1968) [25, 98 (1968)]

On the Crystalline Field Screening Effects for the $4f^2$ Shells of Rare Earth Ions and Nuclear Moments. II—A. G. Makhanek and V. S. Korolkov. 25, 53 (1968) [25, 104 1968)]

Anisotropy of the g-Tensor of the Er^{3+} Ion in Erbium-Gallium Garnet—A. I. Belyaeva, V. V. Eremenko, V. N. Pavlov, and A. V. Antonov. 25, 55 (1968) [25, 109 1968)]

Dependence of Two-Photon Absorption in the Stilbene Crystal on the Direction of Light Polarization—M. D. Galanin and Z. A. Chizhikova. 25, 57 (1968) [25, 113 1968)]

Investigation of the Optical Properties of SiO_2 Films Obtained by Thermal Oxidation of Silicon, in the 7.0-11.0-μ Wavelength Range—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 59 (1968) [25, 117 (1968)]

Optical Resonator with a Lens Placed Inside It and Matched to Its Mirrors—V. F. Boitsov. 25, 62 (1968) [25, 122 (1968)]

Optical Transfer Function of Optical Systems with Third- and Fifth-Order Spherical Aberration—A. Lenskii. 25, 66 (1968) [25, 129 (1968)]

Study of the Distribution of Refractive Index by the Differential-Prism Method—M. Miler and V. Malisek. 25, 70 (1968) [25, 138 (1968)]

Power Amplification of a Laser Pulse Acting on a Substance in the Presence of Induced Mandelstam-Brillouin Backscattering—F. A. Korolyev, Z. A. Baskakova, A. I. Odintsov, and G. Singurel. 25, 72 (1968) [25, 142 (1968)]

Donor-Acceptor Interactions of Organic Molecules with a CuI Surface—Yu. D. Pimenov. 25, 73 (1968) [25, 144 (1968)]

Kinetics of Absorption by a Substance of a Broad-Spectrum Radiation—A. I. Burstein and Yu. S. Oseledchik. 25, 75 (1968) [25, 146 (1968)]

Sum Rules for the Nonrigid Asymmetrical Top—Yu. S. Makushkin. 25, 76 (1968) [25, 148 (1968)]

Characteristics of the Scattering of Coherent Optical Waves by a Curved Rough Surface—S. N. Shostko and G. A. Travin. 25, 78 (1968) [25, 151 (1968)]

On the Role of Langmuir Oscillations in the Theory of Resonance-Luminescence Capture. 25, 79 (1968) [25, 154 (1968)]

Oscillator Strengths of the Spectral Lines of EuI—V. A. Komarovskii, N. P. Penkin, and L. N. Shabanova. 25, 81 (1968) [25, 155 (1968)]

Structure of the Lowest Stark Sublevels of $4f^1$ and $5d^1$ Configurations of the Tetragonal Cerium Center in MeF_2-Type Crystals—N. V. Starostin. 25, 83 (1968) [25, 159 1968)]

Method of Introducing Small Calibrated Damping in an Optical Resonator—Yu. V. Troitskii. 25, 84 (1968) [25, 160 (1968)]

Selection Rules for Multiquantum Transitions—D. A. Varshalovich. 25, 85 (1968) [25, 162 (1968)]

Absorption of Irradiated LiF Crystals in the Ir Region of the Spectrum—Z. G. Akhvlediani and N. G. Politov. 25, 86 (1968) [25, 163 (1968)

The Broadening of Excited Neon Levels Due to Interaction with Normal Atoms—S. I. Krylova, L. A. Luizova, and A. D. Khakhaev. 25, 87 (1968) [25, 165 (1968)]

On Contracted High Frequency Neon Discharge—S. D. Vagner, Yu. M. Kagan and G. Yu. Krustalyev. 25, 88 (1968) [25, 166 (1968)]

Influence of Light Interference in a Silicon Dioxide Film on the Reflection Spectrum of an SiO_2—Si System in the 9-μ Region—A. V. Rakov, E. V. Potapov, and L. P. Mizgireva. 25, 89 (1968) [25, 168 (1968)]

Excitation of Molecular Oxygen by Low-Energy Electrons—V. V. Skubenich. 25, 90 (1968) [25, 169 (1968)]

Influence of the Mirror Motion in a Three-Mirror Resonator on the Generation Power—V. G. Domeluuksen and T. B. Tolchinskaya. 25, 91 (1968) [25, 170 (1968)]

Transfer of Excitation fom the 'p to the 'D Level of Helium—S. E. Frish and Yu. Z. Ionikh. 25, 91 (1968) [25, 171 (1968)]

No. 2—August

Spectroscopic Investigation of an Ultrahigh-Frequency Discharge in Inert Gases—I. N. Kalvina, S. M. Leonteva, and L. G. Shuvalova. 25, 93 (1968) [25, 173 (1968)]

Density of Particles in the Surface Discharge Channel—E. V. Daniel. 25, 96 (1968) [25, 179 (1968)]

On the Velocity Distribution Function in the Case of Collisions of the Second Kind—V. A. Dudkin. 25, 99 (1968) [25, 185 (1968)]

A Generalized Equivalence Equation and Its Application to the Calculation of the Zero-Order Frequencies and Anharmonicity Constants of Tetrahedral Hydrides—V. G. Trofimenko and V. P. Morozov. 25, 102 (1968) [25, 190

A Study of the Intensities and Polarizations of Second-Order Lines in Raman Spectra of Liquids—N. K. Sidorov, L. S. Stalmakhova, and V. A. Eskin. 25, 104 (1968) [25, 194 (1968)]

Variation of Raman Line Intensities with the Frequency of the Exciting Light—P. P. Shorygin and T. M. Ivanova. 25, 107 (1968) [25, 200 (1968)]

Effect of Intermolecular Interactions on the Vibrational Spectra of Molecules III: Polyatomic Molecules (Intensities of the Infrared Spectra of HCN and DCN)—O. P. Girin, S. Kh. Akopyan, and N. G. Bakhshiev. 25, 111 (1968) [25, 207 (1968)]

On the Effect of the Charge-Transfer State on the Optical Properties of Substituted Benzenes—N. I. Galperina, V. M. Berenfeld, V. P. Bazov, and V. A. Krongauz. 25, 115 (1968) [25, 216 (1968)]

Electronic Absorption and Luminescence Spectra and Characteristics of the Electronic Structure of Arylpyrázolines—R. N. Nurmukhametov, N. A. Lodygin, and G. I. Grishina. 25, 118 (1968) [25, 222 (1968)]

Absorption Spectra at 77°K of n-Paraffin Solutions of Compounds Based on the Biphenyl Structure—G. V. Gobov, R. N. Nurmukhametov, and L. A. Nakhimovskaya. 25, 120 (1968) [25, 227 (1968)]

Optical Characteristics of Solid Films of Dyes in the Region of Electronic Bands—V. M. Korovina, L. I. Alperovich, N. G. Bakhshiev, and P. K. Khripunov. 25, 126 (1968) [25, 236 (1968)]

The Vibronic Spectra of Crystals of Certain p-Dialkylbenzenes—G. V. Klimusheva, B. M. Lerman, N. I. Tyun'kina, and R. V. Yaremko. 25, 129 (1968) [25, 243 (1968)]

Evidence of the Radiating-Centers Inhomogeneity of Crystalline Anthracene in Fluorometric Phase Spectra—L. A. Limareva, A. S. Cherkasov, and V. I. Shirokov. 25, 132 (1968) [25, 249 (1968)]

The Influence of Scattering Center Motion on Polarized Luminescence—V. N. Tropinin. 25, 135 (1968) [25, 254 (1968)]

Breakdown of the Bunsen–Rosco Law in the Photochemical Oxidation of Antimony Ions—M. U. Belyi and B. A. Okhrimenko. 25, 139 (1968) [25, 262 (1968)]

On the Gas Laser Regime at High Pressures—T. L. Andreeva and T. I. Kuznetsova. 25, 141 (1968) [25, 266 (1968)]

On One Case of Multiple-Beam Interference—Ya. E. Amstislavskii. 25, 143 (1968) [25, 270 (1968)]

Monochromatic Light Modulation by Means of Multiple-Beam Interference—F. A. Korolov and G. M. Melkhis. 25, 148 (1968) [25, 280 (1968)]

Effect of Temperature Deformations on the Image Quality of Optical Components—G. F. Pishchik. 25, 150 (1968) [25, 284 (1968)]

On the Nature of Anthracene Aggregation in Solution—L. A. Klimova, G. N. Nersesova, and V. I. Glyadkovskii. 25, 153 (1968) [25, 290 (1968)]

On the Luminescence of Fluorapatite Activated by Rare-Earth Elements—B. S. Gorobets. 25, 154 (1968) [25, 292 (1968)]

Photoluminescence of Strontium Borate Activated by Samarium—M. E. Movsesyan and V. A. Gevorkyan. 25, 156 (1968) [25, 294 (1968)]

Variational Calculation of the Probabilities of Singlet–Triplet Transitions in the Helium Atom—M. S. Yurev. 25, 157 (1968) [25, 295 (1968)]

Generation of Light in Solutions of Dyes in the 550–650 nm Range—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 159 (1968) [25, 297 (1968)]

Theoretical and Experimental Investigation of the Absolute Intensities of Bands in the Infrared Spectra of Polyatomic Molecules I: Acetone—V. I. Vakhlueva, A. G. Finkel, L. M. Sverdlov, and L. A. Zaitseva. 25, 160 (1968) [25, 299 (1968)]

Determination of the Einstein-Coefficient Spectra of Molecules of Aromatic Compounds in Solution in the Electronic-Absorption-Band Region—V. M. Korovina and N. G. Bakhshiev. 25, 162 (1968) [25, 302 (1968)]

Peakless Regime and Mode Width of a Continuous Laser—N. M. Galaktionova, V. F. Egorova, and A. A. Mak. 25, 164 (1968) [25, 305 (1968)]

Strong-Field Approximation in the Theory of $4f^{n-1}$ 5d Configurations of Lanthanides in Crystals of the Fluorite Type—N. V. Starostin. 25, 165 (1968) [25, 306 (1968)]

On One Property of Three-Dimensional Holograms Taken in Immediate Proximity to the Object—Yu. N. Denisyuk and V. I. Sikhanov. 25, 166 (1968) [25, 308 (1968)]

Production of Holograms by Means of a Special Prism in the Case when a Laser with Limited Coherence Length is Used—B. G. Turukhano and N. Turukhano. 25, 167 (1968) [25, 309 (1968)]

Intrinsic Frequencies and the Distribution of Fields on Mirrors of an Astigmatic Resonator in the Geometrical Optics Approximation—V. F. Boitsov. 25, 168 (1968) [25, 311 (1968)]

Resonators for Lasers with Rotated Directions of Principal Curvatures—M. M. Popov. 25, 170 (1968) [25, 314 (1968)]

The Quenching of Laser Action in an Ion Laser—N. G. Preobrazhenskii and N. Ya. Shaparev. 25, 172 (1968) [25, 317 (1968)]

Study of the Properties of the He–Ne Laser with a Small Discharge Space—V. E. Privalov and V. A. Khodovoi. 25, 173 (1968) [25, 318 (1968)]

The Relative Brightness and Optical Excitation Functions of Certain Spectral Lines of Mercury—I. P. Bogdanova and V. D. Marusin. 25, 174 (1968) [25, 319 (1968)]

Determination of g Factors of Excited Levels of Neutral and Singly Ionized Rubidium—G. P. Anisimova, V. D. Galkin, and R. I. Semenov. 25, 176 (1968) [25, 322 (1968)]

No. 3—September

Determination of the Line Width of the $3s_2$–$3p_4$ Transition in Ne—A. I. Popov and E. D. Protsenko. 25, 179 (1968) [25, 325 (1968)]

Hanle Effect for Different Excitation Times of Interfering Levels—G. Khvostenko and M. Chaika. 25, 181 (1968) [25, 330 (1968)]

On the Mechanism of Excitation in a Hollow Cathode in Neon—V. P. Gofmeister and Yu. M. Kagan. 25, 185 (1968) [25, 337 (1968)]

Collisions of the Second Kind in the Afterglow of the Positive Column of a Mercury–Krypton Discharge—O. P. Bochkova and Yu. A. Tolmachev. 25, 187 (1968) [25, 342 (1968)]

Depolarizing Collisions of Excited Thallium Atoms with Inert Gases—S. Teplova, M. Chaika, and V. Cherenkovskii. 25, 189 (1968) [25, 346 (1968)]

The Nonelementary Nature of the Contour of the Green II Band in the Luminescence Spectrum of the ZnS:Cu, Cl Phosphor—S. V. Degina, L. S. Revzin, and L. M. Shapiro. 25, 191 (1968) [25, 350 (1968)]

Force Constants of Pyramidal Molecules of the Type XY_3—A. T. Kozulin. 25, 192 (1968) [25, 353 (1968)]

Low-Frequency Vapor Spectra of Alkaline-Earth Metal Fluorides—V. I. Baikov. 25, 194 (1968) [25, 356 (1968)]

Characteristics of the Absorption Spectrum of the Fluorobenzene Crystal—G. V. Klimusheva, A. F. Prikhotko, and G. M. Soroka. 25, 197 (1968) [25, 361 (1968)]

Study of the Temperature Dependence of the Phosphorescence of Coronene in n-Paraffins—D. M. Grebenshchikov. 25, 200 (1968) [25, 368 (1968)]

The Dependence of the Mean Lifetime of the Excited State and the Photoluminescence Yield of Anthracene on the Concentration of Impurities Produced by Irradiation—Sh. D. Khan-Magometova. 25, 203 (1968) [25, 373 (1968)]

Structural Imperfections in Gypsum Crystals and the Vibrational Spectrum of the Hydrogen Bond—A. I. Stekhanov and E. A. Popova. 25, 205 (1968) [25, 378 (1968)]

Reflection and Photoluminescence Spectra of Gallium Phosphide Crystals—S. G. Kroitoru, S. L. Pyshkin, S. I. Radautsan, and V. V. Sobolev. 25, 207 (1968) [25, 382 (1968)]

On the Theory of Laser Resonators—A. M. Samson. 25, 209 (1968) [25, 386 (1968)]

Resonators for Lasers with Unfolded Directions of Principal Curvatures—M. M. Popov. 25, 213 (1968) [25, 394 (1968)]

Competition of Generation of Radiation in Two Transitions with the Same Upper State—I. V. Rogova. 25, 217 (1968) [25, 401 (1968)]

Investigation of Generation of Radiation in the Na–H_2 Mixture—A. S. Tibilov and A. M. Shukhtin. 25, 221 (1968) [25, 409 (1968)]

On a Possibility of Using Noncontracted Discharge to Enhance the Power of a Co_2–N_2–He Laser—P. A. Bokhan. 25, 225 (1968) [25, 417 (1968)]

Q Switching of a Laser Based on the Triplet-Triplet Transitions of Organic Molecules—E. G. Berzing, S. V. Lopina, Yu. V. Naboikin, and Yu. A. Tiunov. 25, 227 (1968) [25, 421 (1968)]

Experimental Investigation of the Discrete Deviation of Optical Beams Based on the Electrooptical Effect in ADP-Type Crystals—O. G. Vlokh, L. F. Lutsiv-Shumskii, and S. P. Kinakh. 25, 228 (1968) [25, 424 (1968)]

Competition of Generation on Two Transitions with a Common Upper Level in a Traveling Wave Maser—M. I. Kliot-Dashinskii. 25, 229 (1968) [25, 426 (1968)]

Measurements of the Amplification Coefficient and Geometrical Optics of a Liquid Laser—A. V. Rezvov. 25, 231 (1968) [25, 429 (1968)]

Observation of Stimulated Mandelstam-Brillouin Scattering in the Field of Laser Optical Harmonics—S. A. Akhmanov and M. A. Bolshov. 25, 233 (1968) [25, 432 (1968)]

Theoretical and Experimental Investigation of Absolute Band Intensities in the Infrared Spectra of Polyatomic Molecules. II. Acetaldehyde—V. I. Vakhlyueva, A. G. Finkel, L. M. Sverdlov, and A. I. Andreeva. 25, 234 (1968) [25, 433 (1968)]

On the Stability of a Gaussian Beam in a Nonuniformly Amplifying Medium—V. V. Lebedeva, A. I. Odintsov, and K. Kelov. 25, 236 (1968) [25, 436 (1968)]

On the Necessity of Correcting Observed Absorption Spectra of Solids in the Study of Their Microcharacteristics—O. P. Girin, V. S. Libov, and N. G. Bakhshiev. 25, 237 (1968) [25, 438 (1968)]

On the Continuous Spectra of Inert Gases in the Vacuum-Ultraviolet Region Obtained by Means of a Gas-Jet Source—E. T. Verkhovtseva, Ya. M. Fogel, and V. S. Osyka. 25, 238 (1968) [25, 440 (1968)]

Infrared Reflection from Semiconducting Stannic Oxide Layers—B. P. Kryzhanovskii. 25, 240 (1968) [25, 442 (1968)]

Excitation of Stimulated Raman Scattering in a Dispersing Cavity—R. A. Korolev, A. I. Odintsov, and P. A. Tandelov. 25, 241 (1968) [25, 444 (1968)]

Spectral Investigations of Pentacene—A. F. Prikhotko and L. I. Tsikora. 25, 242 (1968) [25, 446 (1968)]

Amplification of Stimulated Raman Scattering by Dyes—L. D. Derkacheva and A. I. Sokolovskaya. 25, 244 (1968) [25, 447 (1968)]

Phase Relations in the Case of the Capture of Modes with Different Q Factors—N. N. Rosanov. 25, 245 (1968) [25, 449 (1968)]

Stark Effect on Hyperfine Levels of the $7P_{3/2}$ State of Cesium—G. Khvostenko and M. Chaika. 25, 246 (1968) [25, 450 (1968)]

Remarks on Articles by M. P. Lisitsa and Coauthors on Dispersion in the Infrared Region—L. I. Alperovich. 25, 247 (1968) [25, 451 (1968)]

Induced Mandelstam-Brillouin Scattering (IMBS) in Glass in the Case of Selffocusing of the Monopulse Laser Beam—L. D. Khazov and A. N. Shestov. 25, 248 (1968) [25, 453 (1968)]

On Atomic Collisions in Gas Lasers—Yu. A. Vdovin. 25, 249 (1968) [25, 454 (1968)]

On the Relaxation of Upper Triplet States in Complex Organic Molecules—V. D. Kotsubanov, Yu. V. Naboikin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 251 (1968) [25, 457 (1968)]

Effective Cross Sections for the Electronic Excitation of CsI Lines—A. N. Klyucharev. 25, 252 (1968) [25, 458 (1968)]
On the Concentration Dependence of Quasiline Phosphorescence Spectra—T. N. Bolotnikova and T. M. Naumova. 25, 253 (1968) [25, 460 (1968)]
Thin Scattering Film in the Field of a Standing Wave of Optical Frequencies and Its Use in Selecting Modes of an Optical Resonator—Yu. V. Troitskii and N. D. Goldina. 25, 255 (1968) [25, 462 (1968)]
The Effect of Copper Impurity on the Cathodoluminescence of ZnS·CdS–Ag—B. M. Gugel and A. Ya. Krupenina. 25, 257 (1968) [25, 465 (1968)]
Experimental Determination of Radiation Lifetimes and Transition Probabilities in Ar I—Ya. F. Verolainen and A. L. Osherovich. 25, 258 (1968) [25, 466 (1968)]
Dependence of the Electroluminescence Intensity of CsI-Tl on Exciting Voltage Parameters—A. N. Georgobiani and E. P. Solodovnikova. 25, 259 (1968) [25, 468 (1968)]
Rate of Quenching of Metastable Helium Atoms in the Positive Column of a Gas Discharge—Yu. A. Tolmachev. 25, 261 (1968) [25, 470 (1968)]
Excitation of Higher States of Helium in the Positive Column of a Discharge Plasma—Yu. A. Tolmachev. 25, 262 (1968) [25, 473 (1968)]
Mikhail Aleksandrovich Elyashevich on his 60th Birthday—25, 265 (1968) [25, 476 (1968)]

No. 4—October

Isotopic Structure of the 1.5295 Millimicron Laser Line of Mercury—V. P. Chebotaev. 25, 267 (1968) [25, 477 (1968)]
The Absorption of a Xenon Plasma in the Continuum Region—S. I. Andreyev and O. G. Baikov. 25, 269 (1968) [25, 481 (1968)]
Cross Sections for the Excitation of the K Series of Argon by Electron Collision—G. G. Dolgov-Savelev and V. E. Panchenko. 25, 270 (1968) [25, 484 (1968)]
Effect of Plasma Inhomogeneity on Atom Temperature Measurements in a Gas Discharge—E. N. Pavlovskaya and I. V. Podmoshenskii. 25, 273 (1968) [25, 488 (1968)]
Calculation of the Photoionization Cross Sections of Molecular Systems. II: Ethylene, Butadiene, and Benzene—I. G. Kaplan and A. P. Markin. 25, 275 (1968) [25, 493 (1968)]
Effect of Hydrogen Bonding on the Vibrations of the NH_2 Group. I: Frequencies of Valence Vibrations—E. L. Zbukova and I. I. Shmanko. 25, 279 (1968) [25, 500 (1968)]
Determination of the Absorption Band Intensities of Anthracene in an Absorbing Solvent on the Basis of Dispersion Measurements—V. M. Korovina and L. I. Alperovich. 25, 282 (1968) [25, 506 (1968)]
Phosphorescence and Fluorescence of Two-Component and Multicomponent Solutions of Biphenyl Derivatives—A. V. Aristov and E. N. Viktorova. 25, 283 (1968) [25, 509 (1968)]
Transfer of Electronic Excitation Energy in Rigid Solutions of Organic Luminors—Ya. A. Terskoi, V. G. Brudz, and O. N. Korolkova. 25, 287 (1968) [25, 516 (1968)]
Concentration Effect on the Decay Time of the Naphthalene and Phenanthrene Phosphorescence—T. N. Bolotnikova, T. M. Naumova, F. I. Gurov, and V. G. Kazachkov. 25, 291 (1968) [25, 523 (1968)]
Temperature Dependence of Luminescence Spectra of Silver Bromide Crystals—E. B. Kozyreva. 25, 293 (1968) [25,
Study of the Population Kinetics of the Metastable ^2E State of Ruby and the Losses in a Q-Switched Laser Resonator—T. K. Razumova and G. M. Rubanova. 25, 295 (1968) [25, 530 (1968)]
Effect of Collisions on Certain Characteristics of the He–Ne Laser—S. A. Gonchukov, G. A. Mikhnendo, and E. D. Protsenko. 25, 305 (1968) [25, 550 (1968)]
Optical Resonator with a Thin Absorbing Film as a Mode Selector—Yu. V. Troitskii. 25, 309 (1968) [25, 557 (1968)]
Attenuation of Light by Absorbing Particles with a Small Real Part of the Refractive Index—A. N. Latyshev, A. S. Sivkov, and N. V. Teselkina. 25, 313 (1968) [25, 565 (1968)]
Passage of Light through Cylindrical Light Pipes by Total Internal Reflection—L. E. Paragamanik, T. I. Sokolovskaya, and Yu. I. Tsirlin. 25, 315 (1968) [25, 568 (1968)]
Polarization Properties of Multilayer Dielectric Mirrors—B. V. Rybakov, S. S. Skulachenko, R. F. Chumichev, and I. I. Yudin. 25, 317 (1968) [25, 572 (1968)]
A Method for Automatic Correction of Aberrations in Composite Optical Systems—D. S. Volosov and N. V. Tseno. 25, 319 (1968) [25, 575 (1968)]
Absorption Spectrum of Tetravalent Chromium in Glasses—S. P. Lunkin, D. G. Galimov, and D. M. Yudin. 25, 323 (1968) [25, 583 (1968)]
Phosphorescence Emission and Gudden–Pohl Effect Spectra of Sulfoselenides $Zn(S_{100-n}Se_n)$–Cu,I—A. G. Goldman, B. N.
Electroluminescence Spectra of ZnSe–Cu,I and Temperature Dependence of the Luminescence—B. N. Korolko and S. F. Lysenko. 25, 325 (1968) [25, 585 (1968)]
New Method for the Determination of the Spectroscopic Characteristics of Molecules in a Condensed Medium—V. S. Libov. 25, 326 (1968) [25, 588 (1968)]
Luminescence of Zinc and Magnesium Orthovanadates Imbedded in Certain Oxides and Salts—S. L. Berdnikov and Ya. M. Zelikin. 25, 329 (1968) [25, 591 (1968)]
Neodymium Glass Laser with Plane-Polarized Emission—V. V. Dedushkevich, Yu. P. Ivanov, D. I. Perlov, and V. S. Savodchenko. 25, 331 (1968) [25, 594 (1968)]
Primary Electro-Optical Effect in Trenchloride Crystals—A. S. Vasilevskaya, V. P. Popova, I. S. Rezand, and A. S. Sonin. 25, 332 (1968) [25, 596 (1968)]
Calculation of Hartree–Fok Atomic Wave Functions and Energies in Terms of Perturbation Theory—A. I. Greiser. 25, 333 (1968) [25, 598 (1968)]
Some Features of the Build-Up Process of X-ray Luminescence in Alkali-Halide Crystal Phosphors—R. M. Muminov and F. N. Zaitov. 25, 335 (1968) [25, 600 (1968)]
Dynamical Theory of Energy Migration in a Two-Dimensional Liquid—I. A. Nagibarova and V. R. Rizaev. 25, 336 (1968) [25, 602 (1968)]
Instrumental Contour Distortion in Faraday Rotation Spectroscopy—V. K. Miloslavskii, V. V. Karmazin, and S. P. Gavrilov. 25, 338 (1968) [25, 605 (1968)]
Cumulative Luminescence in CaF–Gd^{3+}, Yb^{3+}—D. D. Livanova, I. G. Saitkulov, and A. L. Stolov. 25, 340 (1968) [25, 609 (1968)]
Energy of Splitting of the Singlet and Triplet Terms of the M Center—A. A. Berezin. 25, 341 (1968) [25, 610 (1968)]
Determination of Some Helium Spectral Line Absorption Coefficients from Fabry–Perot Line Profiles—A. P. Makarov. 25, 342 (1968) [25, 611 (1968)]
Some Optical and Electrical Properties of Thin Films of Cu_3PSe, Cu_3PSeS_X and Cu_3PSeI_X—B. P. Kryzhanovskii. 25, 343 (1968) [25, 613 (1968)]

The Decay of the Metastable 2 ^1S State of Helium in a Discharge—Yu. Z. Ionikh and S. E. Frish. 25, 345 (1968) [25, 615 (1968)]

Characteristics of the Optical Transmission of Phototropic Shutters and Their Effect on Laser Parameters—L. S. Dovger, B. A. Ermakov, and A. V. Lukin. 25, 346 (1968) [25, 617 (1968)]

Influence of the Nature of a Para-Substituent on the Frequency of the First Electronic Transition in the Stilbene Molecule—T. N. Bolotnikova, L. Ya. Malkes, A. I. Nazarenko, and V. N. Yakovenko. 25, 348 (1968) [25, 621 (1968)]

The Determination of Force Constants by a Matching Method—Yu. N. Panchenko, G. S. Koptev, N. F. Stepanov, and V. M. Tatevskii. 25, 350 (1968) [25, 623 (1968)]

Coherence in Optics, by M. Francon and S. Slansky—N. I. Kaliteevskii. 25, 352 (1968) [25, 627 (1968)]

Two New Books on Lasers: Optical Masers, by G. Birnbaum; Solid State Lasers, by M. L. Ter-Mikhaelyan and Yu. G. Turkov—Yu. T. Mazurenko. 25, 353 (1968) [25, 627 (1968)]

No. 5—November

Calculation of Sodium and Potassium Atoms by the Hartree—Fok Method with Complete Self-Consistency—Kh. V. Gezalov and A. V. Ivanov. 25, 355 (1969) [25, 629 (1969)]

Semiempirical Calculation of the Excitation and Ionization Energies of Isoelectronic Atoms and Ions. II—T. N. Rekasheva and M. G. Veselov. 25, 357 (1969) [25, 633 (1969)]

Correlation Spectroscopy of Optical Radiations—V. V. Artemyev. 25, 358 (1969) [25, 635 (1969)]

Oscillator Strengths of the Isoelectronic Series of Zinc—V. A. Zilitis. 25, 361 (1969) [25, 641 (1969)]

The Broadening of the Spectral Lines of Non-Hydrogen-Like Ions—V. A. Alekseev and E. A. Yukov. 25, 363 (1969) [25, 645 (1969)]

Application of Coulomb Green's Function to the Calculation of the Interaction of a Hydrogen Atom with the Field of a Light Wave in Second-Order Perturbation Theory—S. I. Vetchinkin and S. V. Khristenko. 25, 365 (1969) [25, 650 (1969)]

The Influence of Intermolecular Electric Fields on the Probabilities of Dipole Transitions—L. I. Grechikhin. 25, 368 (1969) [25, 655 (1969)]

Magnetooptics of an Electron Gas—O. Ya. Savchenko. 25, 370 (1969) [25, 658 (1969)]

Measurement of the Time Behavior of Temperature in a Plasma-Beam Discharge—E. F. Lifshits, O. F. Kovpik and E. A. Kornilov. 25, 373 (1969) [25, 664 (1969)]

Relaxation Method for Determining the Nature of Continuum in Nonequilibrium Arc Discharges—V. Ya. Aleksandrov, D. B. Gurevich, and I. V. Podmoshenskii. 25, 378 (1969) [25, 674 (1969)]

On the Intensity of Emission Continuum of the Negative Nitrogen Atom—A. A. Kõnkov, V. M. Nikolaev, and Yu. A. Plastinin. 25, 380 (1969) [25, 679 (1969)]

Coefficient of Continuous Absorption of Hydrogen–Carbon Plasma at 40 000°K and 70 Atm—S. N. Belov, N. N. Ogurtsova, and I. V. Podmoshenskii. 25, 383 (1968) [25, 684 (1968)]

Quasiline Phosphorescence Spectra of Halogenated Naphthalenes in Paraffins at 55°K. I. Naphthalene, α-fluoronaphthalene, α-fluoronaphthalene-D_7, and α-chloronaphthalene—Kh. I. Mamedov, I. K. Nasibov, and E. N. Niyazova. 25, 386 (1968) [25, 689 (1968)]

Determination of T–T* Absorption Spectra by Means of Two-Quantum Photosensitized Reactions—T. S. Zhuravlyeva. 25, 389 (1969) [25, 696 (1969)]

Fluorescence of Benzene Solutions of Rare Earth Com- 701 (1969)]

Optical Electronic Transitions between Local and Zone States in Impurity Centers—N. N. Kristofel and G. S. Zavt. 25, 395 (1969) [25, 705 (1969)]

Gudden–Pohl Effect and Sensitizing of Manganese in Zinc Sulfide Phosphors—A. G. Goldman and I. L. Romanenko. 25, 399 (1969) [25, 713 (1969)]

Theory of Lasers with an Ancillary Mirror. I—V. I. Perel and I. V. Rogova. 25, 401 (1969) [25, 716 (1969)]

Stimulated Luminescence of Dyes in the 720–920 nm Region—L. D. Derkacheva, A. I. Krymova, A. F. Vompe, and I. I. Levkoev. 25, 404 (1969) [25, 723 (1969)]

Laser Action in Solutions of Organic Luminophors in the 400–650 nm Range—V. D. Kotsubanov, Yu. V. Nabolkin, L. A. Ogurtsova, A. P. Podgornyi, and F. S. Pokrovskaya. 25, 406 (1969) [25, 727 (1969)]

The Effect of Radiation Parameters of a Laser on the Efficiency of Frequency Doubling in a KDP Crystal—M. P. Vanyukov, V. D. Volosov, and M. I. Rashchektaeva. 25, 410 (1969) [25, 735 (1969)]

Optical Method for Eliminating the Apparatus Function of a Spectral Instrument—V. A. Zubov. 25, 412 (1969) [25, 738 (1969)]

Specular Reflection from a Mat Surface with Coarse Microtopography—V. K. Polyanskii, L. V. Kovalskii, and T. L. Milovidova. 25, 415 (1969) [25, 744 (1969)]

Reproduction of Contrast by an Optical System in the Case of Imaging of Two Lines Darker than the Surrounding Field and the Resolution Limit as a Function of Several Factors—L. P. Moroz and Z. O. Kirilyuk. 25, 417 (1969) [25, 748 (1969)]

Pressure Dependence of the Line Width of the $3s_4$–$3p_4$ Transition of Neon—M. A. Gubin, A. I. Popov, and E. D. Protsenko. 25, 421 (1969) [25, 756 (1969)]

Calculation of the Diffraction Distribution of Irradiance from an Incoherently Illuminated Disk—P. F. Parshin. 25, 422 (1969) [25, 757 (1969)]

Application of the Extended Method of Calculation to the Theoretical Determination of the Fine Structure of Atom and Ion Terms in the $1s^22s^22p^N$ Configuration—V. A. Kaminskas and A. P. Yutsis. 25, 423 (1969) [25, 759 (1969)]

Suppression of Phase-Difference Fluctuations in Interferometric Measurements—Yu. G. Kozlov. 25, 424 (1969) [25, 761 (1969)]

Some Features of Raman Scattering in Powdered p-Nitroaniline and Related Compounds—Ya. S. Bobovich and A. V. Bortkevich. 25, 426 (1969) [25, 763 (1969)]

A Study of Vibrational Processes in Molecules with Different Symmetries but Similar Masses and Structures—O. V. Fialkovskaya and A. V. Nefedov. 25, 428 (1969) [25, 766 (1969)]

The Effect of Intramolecular Interactions on the C≡C Abgastilovich, D. I. Shigorin, K. V. Zhukova, T. D. Burnashova, and N. V. Komarova. 25, 429 (1969) [25, 769 (1969)]

Stark Structure of the $5d^1$ Configuration of the Cerium C_{3v}-Center in Crystals of the MeF_2 Type—N. V. Starostin and V. K. Zakharov. 25, 431 (1969) [25, 771 (1969)]

Calculation of the Optimum Shape of Light Flux Modulation—Yu. V. Batalov and V. F. Nesteruk. 25, 432 (1969) [25, 773 (1969)]

The Luminescence of KI–AgI—N. I. Ivanova and I. V. Nedzvetskaya. 25, 434 (1969) [25, 776 (1969)]
The Infrared Spectra of Deuteroderivatives of N-Monosubstituted Amides in Dilute Solution—N. A. Sharonova and V. N. Nikitina. 25, 436 (1969) [25, 779 (1969)]

No. 6—December

Calculation of the Electron Shells of an Atom by the Quantum Field-Theory Method—V. M. Evdokimov. 25, 439 (1968) [25, 781 (1968)]
Structure of the Perturbation Series for the Corrections to Dipole Transition Probabilities—S. I. Vetchinkin and S. V. Khristenko. 25, 444 (1968) [25, 791 (1968)]
Broadening of the Resonance Lines of CaI, SrI, and BaI by Inert Gases—N. P. Penkin and L. N. Shabanova. 25, 446 (1968) [25, 795 (1968)]
Approximate Solution of the Balance Equation of Excited Atoms Corrected for Diffusion by the Extreme Functional Method—B. Z. Tambovtsev. 25, 448 (1968) [25, 799 (1968)]
Cross Sections for Transitions between Fine Structure Components of Atoms of Group II. Collisions between Identical Atoms—A. I. Voronin and E. E. Nikitin. 25, 450 (1968) [25, 803 (1968)]
On Resonance Nonadiabatic Transitions—V. B. Nagaev and V. I. Osherov. 25, 453 (1968) [25, 810 (1968)]
The Transfer of Excitation Energy between the 10^3P_1 and 10^3P_2 Levels of Hg in Collisions with Krypton Atoms and Electrons—O. P. Bochkova. 25, 456 (1968) [25, 815 (1968)]
Multiplet States of Diatomic Molecules with Spin–Orbit Coupling Intermediate between Hund's Cases a and b—G. N. Yurkov and G. A. Khachkuruzov. 25, 459 (1968) [25, 820 (1968)]
Measurement of the Emissivity of Nitrogen, Oxygen, and Air in the Vacuum Ultraviolet Region of the Spectrum—S. G. Grenishin, A. F. Simonenko, and G. P. Startsev. 25, 461 (1968) [25, 825 (1968)]
Determination of the Shape and Width of Absorption Lines of the Hydroxyl Molecule by the Curve of Growth Method—N. M. Komissarov. 25, 463 (1968) [25, 829 (1968)]
The Vibrational Structure of the Electronic Spectra of Some Polyatomic Molecules—F. A. Savin. 25, 467 (1968) [25, 836 (1968)]
Polarization of Absorption Bands and Assignment of Electronic Transitions in the Spectra of Substituted Benzenes—K. R. Popov. 25, 471 (1968) [25, 843 (1968)]
Experimental Study of the Intensities of Stimulated Raman Lines of Certain Pure Liquids and Their Binary Mixtures—A. V. Bortkevich and Ya. S. Bobovich. 25, 474 (1968) [25, 849 (1968)]
Treatment of Field Fluctuations in the Theory of Light Scattering in Liquids—M. F. Vuks. 25, 479 (1968) [25, 857 (1968)]
Fermi Resonance in Molecular Crystals—M. P. Lisitsa and A. M. Yaremko. 25, 482 (1968) [25, 864 (1968)]
Influence of Solution Structure and of Oxygen on the Phosphorescence of Coronene in Hexyl Alcohol—D. M. Grebenshchikov. 25, 485 (1968) [25, 869 (1968)]
The Transfer of Electronic Excitation Energy in Solid Solutions by Means of Virtual Excitons—Ya. A. Terskoi and V. G. Brudz. 25, 489 (1968) [25, 877 (1968)]
Pulse Photoexcitation of Acridine Dye Adsorbates—O. D. Dmitrievskii. 25, 492 (1968) [25, 883 (1968)]
Optical Structure of Luminescence Centers in Crystals Activated by Noble Metal Ions—N. E. Lushchik and T. A. Kuketaev. 25, 495 (1968) [25, 889 (1968)]
Spectral Dependence of the Coefficients of Attenuation by Colloidal Potassium Particles in the KCl Cyrstal—I. S. Radchenko. 25, 500 (1968) [25, 899 (1968)]
Effect of Stationary Waves on Spectral and Energy Characteristics of a Laser with Plane Mirrors—A. N. Rubinov and S. A. Mikhnov. 25, 502 (1968) [25, 903 (1968)]
Production of High-Quality Holograms of Three-Dimensional Diffuse Objects with the Use of Single-Mode Ruby Lasers—D. I. Staselko, A. G. Smirnov, and Yu. N. Denisyuk. 25, 505 (1968) [25, 910 (1968)]
General Theory of Reflection from an Inhomogeneous Layer (E Vector Normal to Plane of Incidence)—V. N. Razumovskii. 25, 507 (1968) [25, 914 (1968)]
Photooptical Characteristics of a Pile of Fiber-Optic Components—G. Ya. Konaeva, D. K. Sattarov, and L. S. Trofimova. 25, 510 (1968) [25, 922 (1968)]
Automatic Spectropolarimeter for Measuring the Faraday Effect in the Visible and Ultraviolet Regions of the Spectrum—Yu. A. Sharonov. 25, 514 (1968) [25, 930 (1968)]
Effect of an Electric Field on the Delayed Fluorescence of Anthracene—B. M. Rumyantsev and E. L. Frankevich. 25, 518 (1968) [25, 938 (1968)]
On the Theory of Lasers with an Additional Mirror. II—V. I. Perel and I. V. Rogova. 25, 520 (1968) [25, 943 (1968)]
The Relationship between the Spatial Coherence of Laser Radiation and the Number of Generated Frequencies—V. V. Pokasov and S. S. Khmelyevtsov. 25, 522 (1968) [25, 945 (1968)]
Collisions between Excited Mercury Atoms and Unexcited Thallium Atoms—E. K. Kraulyina, A. E. Lezdin, and O. S. Sametis. 25, 523 (1968) [25, 947 (1968)]
Temperature Dependence of the Absorption and Dispersion of Carbon Tetrachloride in the Range 740–820 cm^{-1}—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 525 (1968) [25, 949 (1968)]
Absorption and Dispersion of Certain Organic Liquids in the Region of IR Absorption Bands—Yu. E. Zabiyakin and N. G. Bakhshiev. 25, 526 (1968) [25, 951 (1968)]
Rotational Constants, Dipole Moment, and Structure of the Transform of n–C_3H_8O—L. M. Imanov, A. A. Abdurakhmanov, and R. A. Ragimova. 25, 528 (1968) [25, 954 (1968)]
Resonance Frequency Shift in Two-Photon Transitions—N. D. Voropaev and A. N. Oraevskii. 25, 529 (1968) [25, 955 (1968)]
Measurement of the Divergence of the Radiation of Gas Lasers Operating in TEM_{nm} Modes—L. Ya. Gustyr and V. V. Dontsova. 25, 530 (1968) [25, 958 (1968)]
Investigation of Magnetooptical Rotation in f–d-Transitions in CaF_2–Dy^{2+} Crystals—L. A. Alekseeva and N. V. Starostin. 25, 532 (1968) [25, 960 (1968)]
The Exchange Correction to the Amplitude of Direct Scattering of Electrons from Atoms—V. I. Ochkur. 25, 534 (1968) [25, 964 (1968)]
Absolute Spontaneous Transition Probabilities in the Ne Atom—V. S. Krivchenkova. 25, 536 (1968) [25, 966 (1968)]
Optical Transfer Function in the Region of Low Spatial Frequencies—A. Lenskii. 25, 537 (1968) [25, 968 (1968)]
The Discrete Fluorescence Spectrum of 9-Methylanthracene Vapor—V. P. Klochkov and S. M. Korotkov. 25, 538 (1968) [25, 970 (1968)]

Investigation of the Process of Excitation Energy Transfer from the 7^3S_1 Level of Mercury to the 4^1D_2 Level of Zinc in the Afterglow of a Discharge in a Zinc–Mercury–Krypton Mixture—O. P. Bochkova. 25, 539 (1968) [25, 972 (1968)]

Effect of Stepwise Ionization on the Population of Highly Excited States of Helium—Yu. A. Tolmachev. 25, 541 (1968) [25, 974 (1968)]